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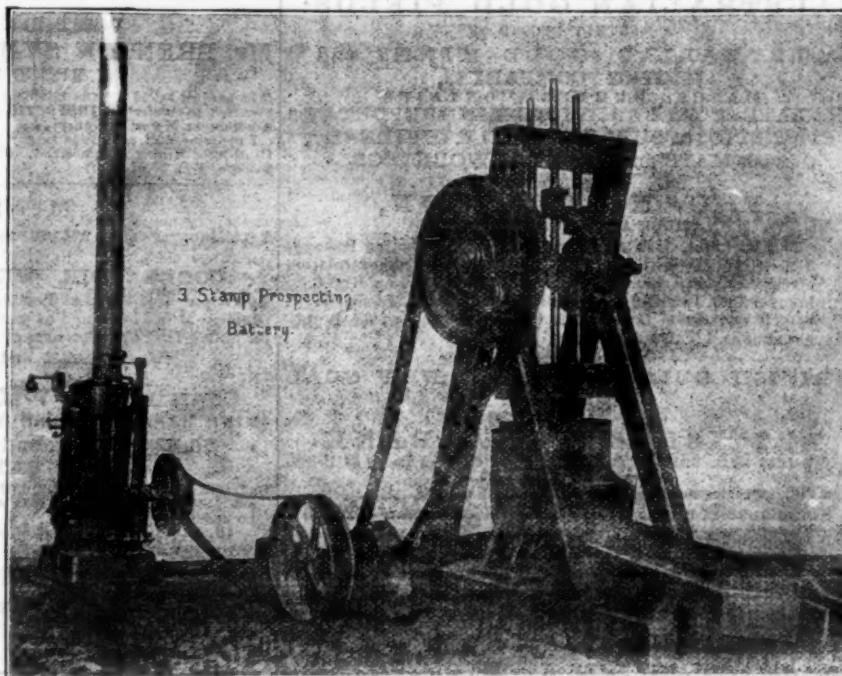
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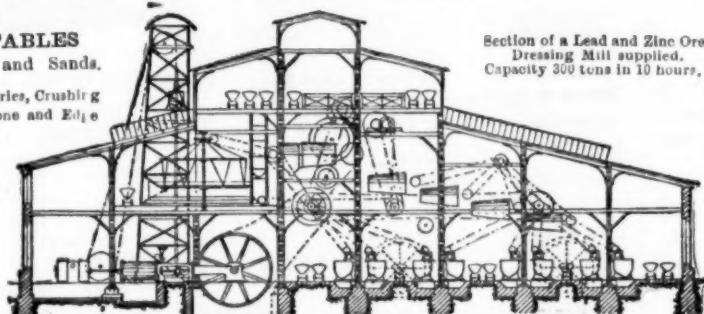
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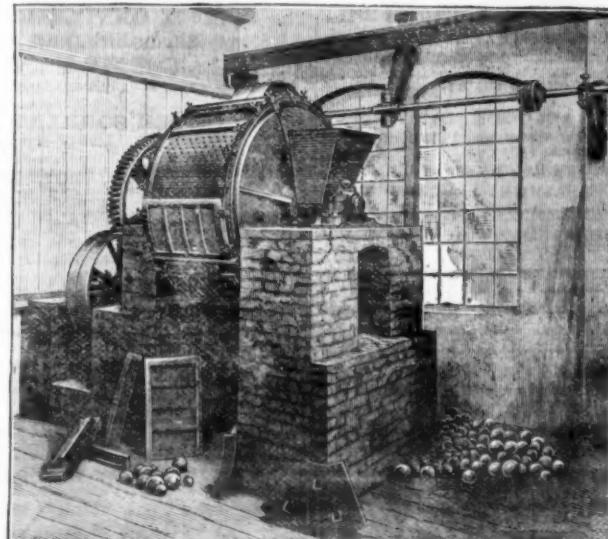
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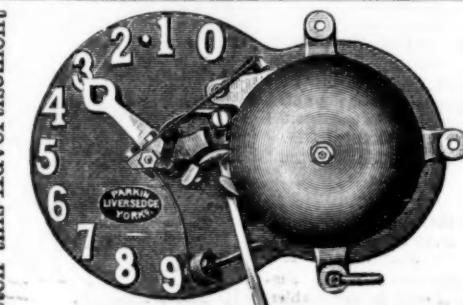


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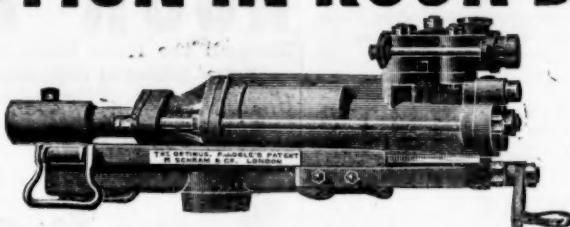
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Belvoir, Grantham,
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SIRS.—Elliman's Royal Embrocation is used in my stables; I think it very useful.

RUTLAND.

Master of the Belvoir Hounds.

From the Earl of Harrington.
January 9th, 1889.

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HARRINGTON.

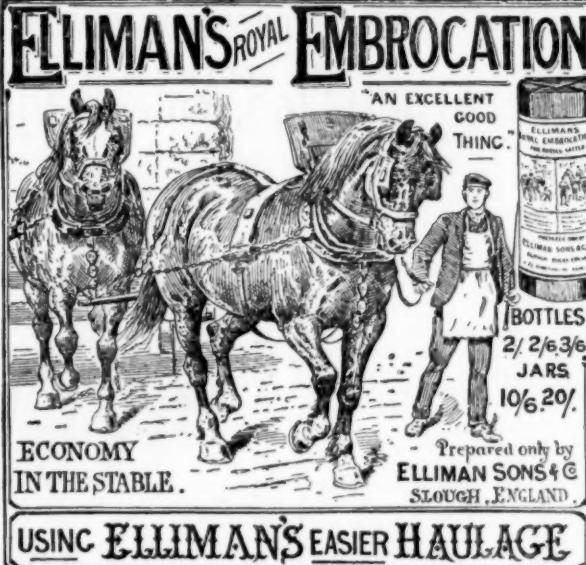
Master o' the South Wilts Hounds.

From Major M. J. Balfe,
South Park.
June 16th, 1892.

SIRS.—Elliman's Royal Embrocation is used in my stables, and I can highly recommend it,

M. J. BALFE.

Master of the Roscommon County Staghounds.



From Lord Haddington, Tynningham, Prestonkirk, N.B.
December 27th, 1885.

SIRS.—Elliman's Royal Embrocation is used in my stable, and I consider it indispensable in any stable, but especially in the stable of a Master of Hounds.

HADDINGTON.

Master of the Berwickshire Hounds.

From R. Burdon Sanderson, Esq., Warren House, Belford July 10th, 1892.

SIRS.—Elliman's Royal Embrocation is used in my stables, and I consider it very useful.

R. BURDON SANDERSON.

Master of Percy Foxhounds.

From Wm. J. Buckley, Esq., Penyfael, Llanely.

July 16th, 1892.

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United States—The Gold and Silver Extraction Co. of America (Ltd.), Denver, Colo.

Mexico—The Mexican Gold and Silver Recovery Co. (Ltd.), 2a, Calle de Providencia, No. 7, Mexico City, Mexico.

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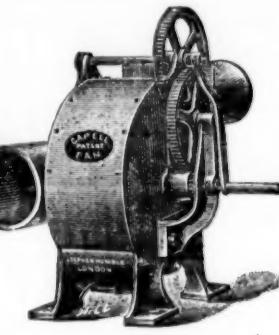
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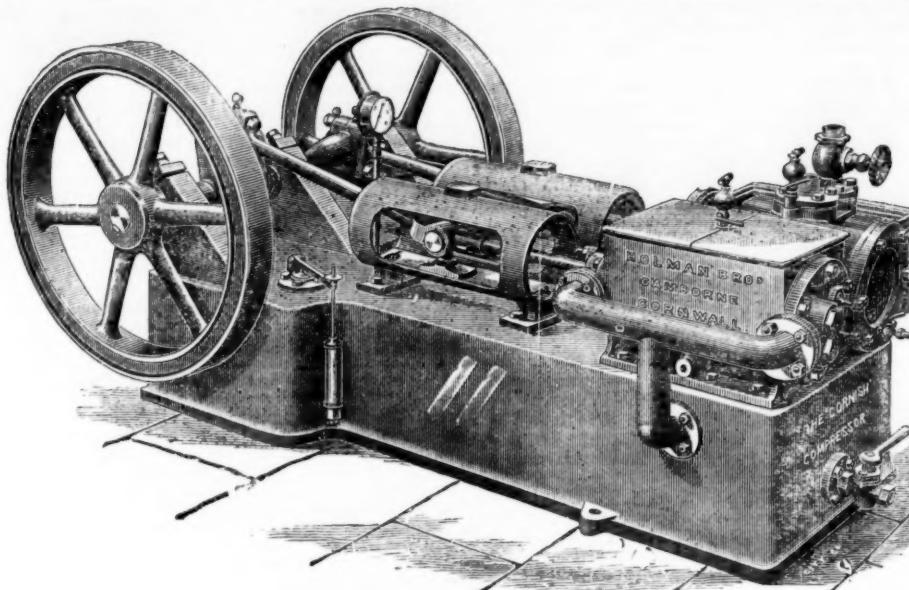
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Date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Portland Cement. April 3 (London).—For the supply and delivery of Portland cement and steel axles for carriages and wagons for the East Indian Railway Company, as per specifications and drawing to be seen at the company's offices. Tenders are to be sent to Mr. A. P. Dunstan, secretary, Nicholas Lane, London, E.

Coal. April 4 (Liverpool).—For supply of best steam coal to steamers at Liverpool for 5, 7, or 12 months, for the Isle of Man Steam Packet Company (Limited). Printed conditions may be obtained from Messrs. Thomas Orford and Son, 22, Water Street, Liverpool.

Tanks. April 4 (Wadebridge, Cornwall).—For supply of 20 galvanised iron tanks of 150 gallons each, fitted with 1-inch taps, delivered free on show-ground at Wadebridge on June 10, for the Local Committee of the Royal Cornwall Agricultural Society. The show-ground is within one mile of railway station and quay. Tenders to Mr. T. Rickard, hon. local secretary, Wadebridge, Cornwall.

Ironwork. April 11 (Burley-in-Wharfedale).—For supply of ironwork required in sewage disposal works for the Urban District Council and Wharfedale District Council Drawings and specifications may be seen, and quantities and form of tender obtained, at the offices of Messrs. John Waugh, C.E., Sunbridge Chambers, Bradford, and Alfred E. Preston, O.E., The Exchange, Bradford, York, on payment of £1 1s., which will be returned on receipt of a bona fide tender.

Machinery, &c. April 15 (Belfast).—Tenders required for erection of additional machinery, on the pneumatic or other approved system, for the steam hopper dredgers of the Harbour Commissioners. Plans and full information may be obtained from C. F. L. Giles, Esq., Harbour Engineer, Belfast. Tenders to be addressed to W. A. Currie, Esq., Secretary, Harbour Commissioners, Belfast.

Reservoir. April 24 (Bulth).—For the construction of an impounding reservoir to hold 855,715 gallons, supplying and laying of 3½ miles of 4 inch c.i. piping, and construction of a filter bed and other necessary works for the supplementary water supply to the town of Bulth, for the Urban District Council of that town. Plans and specifications may be seen at the office of Mr. R. L. Bamford, C.E., Widemarsh Street, Hereford, who will supply bills of quantities on payment of one guinea, returnable on receipt of bona fide tender.

Engines. May 14 (West Ham, Essex).—For supply of two beam pumping engines, each about 250 indicated horse power; two centrifugal pumps and engines, each about 220 i.h.p.; and four boilers, each 30 feet in length by 7 feet 6 inches in diameter. Also alterations to existing machinery. Plans and particulars may be obtained, after April 1, from the Borough Engineer, Town Hall, Stratford, E., on deposit of £5 (Bank of England note), returnable on receipt of bona fide tender.

NEW PATENTS.

LIST OF APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs. Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

5531 William Freakly, Longport, Staffs.—Improved construction for fire-grates for boilers or steam generators, and other furnaces.—March 11.

5532 Joseph Baxter Torres, 12, Golden Square, London.—Improvements in extracting and reducing metals from ores, and other metallic compounds and the like.—March 12.

5533 Edward Griffith Brewer, 32, Chancery Lane, London.—Improvements in or connected with smoke-consuming furnaces and other grates.—March 12.

5534 Dietrich Brauckmann, 42, Meuenweg, Barmen, Germany.—Improvements in mining safety lamps.—March 13.

5535 Alfred George Brookes, 50, Chancery Lane, London.—Improvements in steam engines.—March 14.

5536 Thomas Dawson, 5, John Dalton Street, Manchester.—An improved smoke-consumer for steam boiler and other furnaces.—March 15.

5537 Bruno Verrier, 39, Chancery Lane, London.—Combined bar or logot and sheet metal for heating purposes.—March 15.

5538 Herbert Potter, 156, Fleet Street, London.—An improved composition for antifriction metal.—March 15.

5539 Louis Rousseau, 13, Buckingham Street, Strand, London.—Improvements in furnaces for smelting metals.—March 15.

5540 Annie Catherine Susannah Brunetta Leslie, 45, Southampton Buildings, Chancery Lane, London.—Improvements in alarm gauges for steam boilers.—March 15.

5541 Hargrave Walters and George Thornley, 47, Lincoln's Inn Fields, London.—Improvements in the valve gear of winding and hauling engines.—March 15.

5542 Charles Curzon Lewis, 22, Southampton Buildings, Chancery Lane, London.—Improvements in the safety mechanism of cages or lifts.—March 15.

5543 William Harris Kendall, 23, Coleman Street, London.—Improved hydraulic motor.—March 15.

5544 Frank Scott, Bank Buildings, George Street, Sheffield.—Improvements in rock and coal boring machines.—March 15.

5545 Samuel Albert Johnson, 13, High Street, Poplar, London.—An improved feed-water heater and supplementary steam generator and economiser.—March 15.

5546 Samuel Jeavons, 165, Fleet Street, London.—Improved construction and arrangement of commutators for dynamos.—March 15.

5547 Ginald William James, 1, Queen Victoria Street, London.—Improvements in steam turbines.—March 15.

MARICO NITRATE BEDS.—The following is the substance of the report on observations made by Mr. W. F. Crawford, A.M.I.C.E., during a fortnight's trip to the Marico nitrate beds, in company with Mr. H. Gamold, the well known Nitrate King:—From Mabalstadt, about an hour's drive brings one to the farm Cyfarfontein, a large farm of about 9000 morgen, which has been divided into four parts. The mineral-bearing ore of one of these four divisions and of two adjoining farms, is being worked by the Western Gold Mining Company (Limited). A 10-stamp battery is at work, and so far is giving highly satisfactory results. These farms contain a flat-lying quartz reef, somewhat honey-combed and full of iron oxide containing coarse gold. The industry is new to the district, and there is little doubt but that much more will be heard of it in the near future. The nearest coal to this gold deposit will probably be about two hours to the north-west of the Western G. M. Company works. Here there are good indications; but, so far, no trial pits have been put down. Still further on, near Zeerust, coal measure slates are found, and at one point a shaft 40 feet deep has been sunk right through the shales. On the neighbouring hills sandstones and grits are seen overlying the shales. There can be little doubt but that a bore-hole will prove the existence of coal, and a syndicate is about to be formed to carry out prospecting operations at once, the bed being only 30 miles from Mafeking. For many years it has been known that nitrate of potash occurs in the thin laminated shale in the range of hills east of Geesrust. This formation is of vast extent, and can be seen in the numerous kloofs, some of which are over 100 feet in height. There are breaks in the face 20 or 30 feet in depth, and there the nitrates are found impregnating the schists in almost a pure state, thus showing that the deposits are not merely on the surface, but extend through the whole mass. From samples taken from various parts of the formation the percentage of nitrates has been found to run from 3 to 15 per cent. Seeing the great facilities for working and extracting the nitre, and preparing it for the market, Mr. Crawford is quite certain that even the lowest percentage given above will yield a handsome profit. As to the extent of these deposits, they are practically unlimited, and, as already mentioned, can be worked with great facility. As for the market, besides home consumption, where it must always command a good price, there will always be a local demand for the manufacture of gunpowder, cyanide, nitric acid, and for brick-making from tailings. Mr. Crawford understands that a London company has been floated, and work on a large scale will be started at once. The industry, he is convinced, will prove a source of great wealth to the district, and is one which the Government should foster in every way possible.—*Standard and Diggers' News*.

The POORMAN CONSOLIDATED MINES (LIMITED), notifies that the transfer books will be finally closed on the 4th prox.

COAL MINING IN EAST BORNEO.—During last year 21,427 tons of coal were produced at the mines of the Steenkolen Maatschappij Oost Borneo, as against 18,830 tons in 1893.

JOHN DAVIS & SON,

ALL SAINTS WORKS, DERBY;
118, NEWGATE STREET, LONDON, E.C.

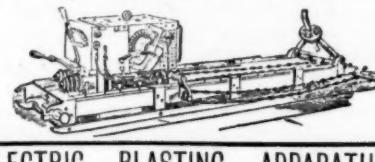
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HENDERSON'S RAPID TRAVERSER.

THE GLASGOW HERALD

(ESTABLISHED 1782)

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OUT OF LONDON.

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HEAD OFFICES: 65-69, BUCHANAN STREET, GLASGOW

LONDON OFFICES: 65 FLEET STREET.

GOLD MINING IN WALES.

BY OUR SPECIAL COMMISSIONER.

DOLGELLY, the county town of Merionethshire, is also the spot around which the gold mining industry of Wales is centred, and hardly had we set foot in the town or tasted of the hospitality of the "Golden Lion," than we were plunged into the consideration of the various gold mining properties in the neighbourhood, some of which are in full swing, while others are in various stages of development. Samples containing visible gold abounded, and there is hardly a tradesman in the place but could take one into his private sanctum, and, with due ceremony, show a fine stone of quartz, sprinkled all over with visible gold—sufficient even to excite the envy of a gentleman in our company who had just returned from Matabeloland, and who was fain to admit that it would be difficult to make a better show, even from the richest reefs of South Africa.

We must, however, tackle our subject in the orthodox fashion, giving, first, an outline of the geological and historical conditions, and then taking our readers with us for a trip from south-west to north-east along the line of mines and properties situated on the gold belt of North Wales, which lies generally along the line of junction between the Lingular flags of the Lower Silurian and the upper grits and quartzites of the Cambrian. The strata consists generally of talcose and steatitic slates, which decompose at the surface to an unctuous clay, in which are interbedded irrupted layers of greenstone. The quartz reefs which cut through these rocks often form bold ridges, which may be traced for miles along their outcrop across the country, and these reefs or lodes may be grouped into three general classes:—(1) Quartz veins having a general direction of north-west by south-east, containing the ores of silver, copper, and more rarely those of lead and blonde, and dipping to the north; (2) quartz veins carrying also carbonate and sulphate of barytes, with lead and blonde, and more rarely copper, running north-east and south-west, dipping south; (3) thin auriferous veins running east and west, dipping north, which vary in width from a mere thread to 6 inches, and occasionally widening out to 2 or 3 yards. These veins pass through the lodes classed 1 and 2, and it is at the point of intersection that these latter carry the greatest proportion of gold, which occurs in a finely granular form, intermixed with the other minerals, as nuggets filling up the cavities in the quartz and as a film upon the surface of the spar and pieces of shale mixed up in the lode matter. We saw some specimens which would fairly rival the famous ones from the Londonderry Mine, in West Australia, lately on view in London; but, as a rule, the gold is not visible to the naked eye in the mass of the ore, although it can be readily made so when a panning is made. The point as to whether the gold is free milling or not cannot as yet be decided, as none of the mines have attained any considerable depth, so that it is impossible to say whether the ores which are now free milling on the surface will become less so as depth is gained. Concentrating appliances are not in use at any of the mines, as all the gold is either caught on the plates or on the blankets which follow them, and these blanketing are then milled with mercury in the form of amalgam known as the Britten pan.

The lodes were originally worked for lead, and it was not until about the year 1841 that they were found to be auriferous by a Mr. Arthur Dean, who, when examining the debris heaps of the Cwmeisien Lead Mines found fragments of ore, which assayed as much as 7 ounces per ton. Some miners also in hand-dressing lead ores noticed a yellow streak of a substance heavier than galena which they could not get rid of, and which to their astonishment they found on assay to be gold. The smelters who had bought the lead ores from this mine had taken care not to mention the matter, and doubtless would have been glad to receive a continuous supply of auriferous galena at the price of the common ore. The mine at which this took place is immediately north of the Gwynfynydd Works of the British Gold Fields Company—formerly known as the Morgan Mine—and is now being re-opened as a gold mine.

The discovery of gold in Wales led, in 1854, to a regular gold mining mania, and many thousands of pounds were squandered in the equipment of London offices and the purchase of useless machinery, which at that time, owing to the then non-existence of railways, was a most costly item, and absorbed a large portion of the available capital. Rich discoveries of gold were made at several of the mines, but the fever gradually died away, and, with the exception of the Clogau and the Gwynfynydd Mines—which are now in successful work—and the Cefn Coch, which is being revived, little is left to tell of the existence of the original mines, with the exception of tunnels and ore heaps along the line of outcrop.

The whole of the mines are on the north side of the estuary of the Mawddach, which joins the sea at Barmouth; so, leaving the train at Penmaenpool station, on the Cambrian line, we walk over the bridge across the river, and turning westwards for 1½ mile along the main road to Barmouth, then leave it and strike up a mountain road following the banks of a foaming torrent, and shortly arrive at the mill owned and worked by the Clogau Gold Mines Company. The mill itself consists of a 10 stamp battery fed by an automatic feeder from the ore crushed by a stone-breaker, and has been running for the last three years on ore which has yielded 1·82 ounce of gold per ton, the amount crushed being 2270 tons, and that mined during the same time being 5588, the balance being still on hand. There are no plates outside the boxes, and any gold or amalgam which escapes is supposed to be caught on rocking cradles lined with blankets. This part of the mill is driven by means of a Pelton water-wheel. The blanketing are treated in a separate building containing some Britten pans driven by a water-wheel. The pans are simply cast-iron bowls with a pear-shaped muller running round. The blanketing are ground up in these with mercury, so that all free gold is amalgamated, and the muddy waters from them with their unknown contents are allowed to run to waste. In the year 1861, 455 tons of ore from this mine produced 2888 ounces, and in the following year 6243 ounces were obtained from 872 tons of ore.

The mill and mine are owned by a few gentlemen engaged in business in Barmouth, who, three years ago, subscribed amongst them £500 to reopen the old workings, and since September, 1891 to October, 1894, they have sold over £17,000 worth of gold, divided £10,000 in profits, spent £5000 in new plant, and £2000 in developments and working expenses. Surely, no better example can be found than this, of what a few energetic local men can do with practically no capital, little knowledge at the commencement of mining, but a large fund of sound common sense, a portion of which they diverted from the management of their own business to that of the mine in which they had a mutual interest. The area of the concession, which is held under lease from the Crown, is 544 acres, and the mine itself is situated about a mile, or quite a 20 minutes' walk up the hill above the mill, and all the ore has to be carted downwards for crushing at a considerable cost per ton. The reason of this is that there is not sufficient water power at the mine to run a mill, and steam would be prohibitive on account of the cost of coal. There is an excellent chance

here for the installation of an electric power plant. Down in the valley there is an abundance of power in the river for all purposes; and in these days it would be a very simple problem to convert it into electricity, and then reconver it into power up at a new mill, to be erected close to the mine, and not only for driving the stamps and milling machinery, but also the air compressor already on the spot, which cannot now be utilised because of the coal question. If the mine were situated anywhere but in the Principality of Wales—say, in West Australia, or in the wilds of South Africa—we venture to state that capital would be found in abundance for its extension and development, on a large scale, for very few of the gold mines in those countries can show milling returns for three years of nearly 2 ounces to the ton.

The interior of the mine is approached by an adit, and most of the ore which has been milled has been obtained by driving along the line of lode, which varies in thickness from 3 to 8 feet, the strike being north-east and south-west dipping east. Some stoping was being done during our visit, and also a shaft was in course of being sunk to prove the quality of the lode in depth below the level of the adit. The total number of men employed is about 30, and we noticed with pleasure that visitors were charged 2s. 6d. each for the benefit of the sick fund. Visitors, we know from personal experience, are an unmited nuisance to the manager of a mine or mill, and it is quite right that they should be deterred by the charge made from making an inspection of the works, or if they insist upon doing so, should be made to contribute to so good an object.

We owe much of the pleasure of our visit to the courtesy of Mr. G. Owen, of Barmouth, the secretary of the company, and of Mr. Ramsay, the local manager of the mine, who both accompanied us through the mill and mine, and also walked over the hill side with us afterwards to show us the outcrops of the Clogau lode, which is being worked, and of the St. David's lode, which, for the present, is untouched.

Leaving the Clogau Mine behind us, we follow the outcrop up and over the hill in a north-easterly direction, and after clambering down one side of the valley and up the opposite one, on which several levels still mark the outcrop of the lode, we find ourselves at last, after a long walk, within the boundaries of the Union Mine, a property held under lease from the Crown by Mr. J. H. Wright, of Llanbadr. Here again the same system of lodes prevails, and exploratory work has been carried out, both on the Clogau, the St. David's, and the subsidiary lodes. The greater portion of the development has been done on the Clogau lode, into which an adit has been cut and levels driven along the lodes in both directions. The lodes are all strongly mineralised with galena and blonde, and if lead and zinc were at anything approaching their old prices, they would be made to pay on these two ores alone. Both the Clogau and the St. David's are, in addition, auriferous, and we panned a sample taken from the former during our visit, and obtained a fair show of the yellow metal. Since our departure we have heard that visible gold has been struck, and we were told that samples of ore, taken from the different parts of the various lodes, have assayed from 3 dwts. of gold up to many ounces per ton.

The owner, however, knowing the delusive character of samples, has not been content with this method of ascertaining the value of the ore, and has actually milled 51 tons in a small mill on the mine, with the result of nearly 14 dwts. of gold per ton; while another lot of 9 cwt., from the Clogau lode, gave 26 ounces of gold. The existing mill, which was erected for the purpose of testing the mine, consists of a stone-breaker, a small Crawford mill, and two Britten pans, driven by steam-power. In the future it is proposed to go in for dry crushing by means of rollers, and dry concentration by means of the Clarkson-Stanfield concentrator, recently described in these columns. The object of this is to recover the galena and blonde as rich auriferous concentrates, in which form they will be sold. Several tests have been made in London with ore from this mine in the dry concentrator, with satisfactory results, while the process is in actual operation at the Carneddau Mines, which will be described, the concentrates thus obtained having a value of £36 12s. 6d. per ton. The area of the Union property is about 150 acres, and the lodes have been traced right across it, by means of trial shafts and openings on the outcrop, and we understand that steps are being taken to raise capital in order to develop it on the extensive scale which it merits, lying as it does directly between the Clogau Mine on the south-west, and the Cefn Coch Mine on the north-east, and on the same lodes which yielded such excellent returns, both especially in the Clogau Mine.

We would warn those who may desire to tread in our footsteps in mining investigations over these hills, that the labour is very fatiguing, and doubly so if, as on the occasion of our visit to this mine, the weather is wet, with the whole landscape frequently blotted out in an impenetrable mist, which renders the road across country difficult, if not dangerous, unless accompanied by a guide in the shape of a local mining captain. Provision for the day's journey must also be taken in the shape of sandwiches and well-filled flasks, from which the water may be omitted, as of that there is abundance everywhere. A lunch made up as above, and taken on the leeward side of a wall, is a well-earned item in the programme of the day. We have heard of lunches being taken under more elaborate circumstances at a Welsh gold mine, and if our informer, who was present on the occasion, was not altogether under the influence of the champagne so liberally served out, we may accept it as a fact that, during the repast, an explosion was heard in the mine close by, and a miner came rushing in with a large lump of ore, glistening with visible gold, and still warm and smoking from the firing of the shot. No such well-timed incidents occurred during our visit, and we tramped back to Dolgelly at night, hungry and weary, and there found rest and refreshment.

(To be continued.)

BRITISH BROKEN HILL PROPRIETARY COMPANY.—On Saturday, Mr. Justice Romer heard a petition to reduce the capital of this company by writing off lost assets.—Mr. Levett, Q.C., who appeared with Mr. Norton, in support of the petition, said the company was incorporated in 1887 to work silver-lead mines in New South Wales.

—Mr. Justice Romer: From what does the loss arise?—Mr. Levett said it was due to a bad bargain; they thought the mine was a good one, and it turned out a bad one. The original capital to start the mine was £1,000,000 sterling; but it had never paid at all.—Mr. Brandon, one of the directors, in an affidavit, stated that, being practically acquainted with mining in Australia, he went out to examine and report upon the company's property. He found that the company's assets were set down as of the value of £1,320,000, but after going into every item carefully with the Australian directors, and making a thorough examination of the property, the conclusion arrived at was that the value of the mine was not more than £264,000, the sum of £1,056,000 not being represented by available assets. The shares were all fully paid.—His Lordship granted the prayer of the petition, and directed the use of the words "and reduced" for one month.

CONSOLIDATED MURCHISON GOLD MINES (LIMITED).—The letters of allotment have been posted.

THE MONTANA MINING COMPANY.—The directors have declared a dividend of 3d. per share, free of income tax, payable on the 17th April. The transfer books of the company will be closed from the 27th to 30th instant, both days inclusive.

PARIS LETTER.

[FROM OUR OWN CORRESPONDENT.]

Position of the share market.—New mining enterprises.—A gold extracting machine.—Important discovery of ironstone.

THE steady level at which South African gold mining values are upheld would tend to show that what is generally alluded to as a "boom," is nothing less than a permanent revival, that may last almost as long as the Rand mines themselves. Undoubtedly, the Parisian investing public is fickle and inscrutable in its dealings in mining and other values, and it would not create much astonishment if at any moment it sold out Rand scrip in favour of something else. For it must be remembered that investments are to a great extent ruled by fashion, and even hard-headed brokers are often bewildered at the precipitancy with which buyers will throw themselves upon certain classes of shares. Of course, the broker is only too happy to encourage buying in any direction, and he allows himself to be drawn along with the current of popular favour. Happily, in the case of South African mines, there is little probability of any serious reaction taking place. The investor has unbounded faith in the wealth of the Rand mining properties, and will turn a deaf ear to the derogatory criticisms of interested people, especially if they should come from foreign sources. It is the firm conviction of the Parisian holder that English speculators want to induce him to drop his shares so that they may purchase them on a rising market and bring them all into English hands. The supposed recent "bearing" manoeuvres in England and Germany, which were said to be aimed especially at the Paris market, had no other effect than to induce investors to hold more tightly to their shares. Some references to the inflated values of Rand scrip, and a general counsel to Parisian holders to exercise a little circumspection, were exaggerated in some quarters into a perfidious attempt on the part of England to shake the foundations of French thrift, and consequently give rise to a great deal of patriotic indignation. The result of this outburst has been to still further strengthen the position of South African scrip, and some of the values have undergone an advance. Randfontein is especially sought after, and during the past week the value has reached the highest point yet attained. As usual, the price of Robinsons have fluctuated, according to the varying reports received from the mines, but they will always continue to be the leading value for investors. Ferreiras and Langlaagte have declined, while Simmer and Jack, which are in good demand, have advanced. Upon the whole, the market is very steady, and is sure to remain so, now that French investors have been put directly in touch with mining enterprise through the medium of the different financial bodies. These are six in number—the Syndicat de la Banque de Paris, the Compagnie Française des Mines d'Or et d'Exploration, the New Austral, the New African Company, the Trust Newmann, and the London-Paris Financial and Mining Corporation. Some of these concerns are intended to carry out all sorts of financial and speculative enterprises in connection with South African mining, and it yet remains to be seen whether their interests are so far identified with those of the Paris investor as to make it worth their while to keep him clear of the pitfalls of mining investment.

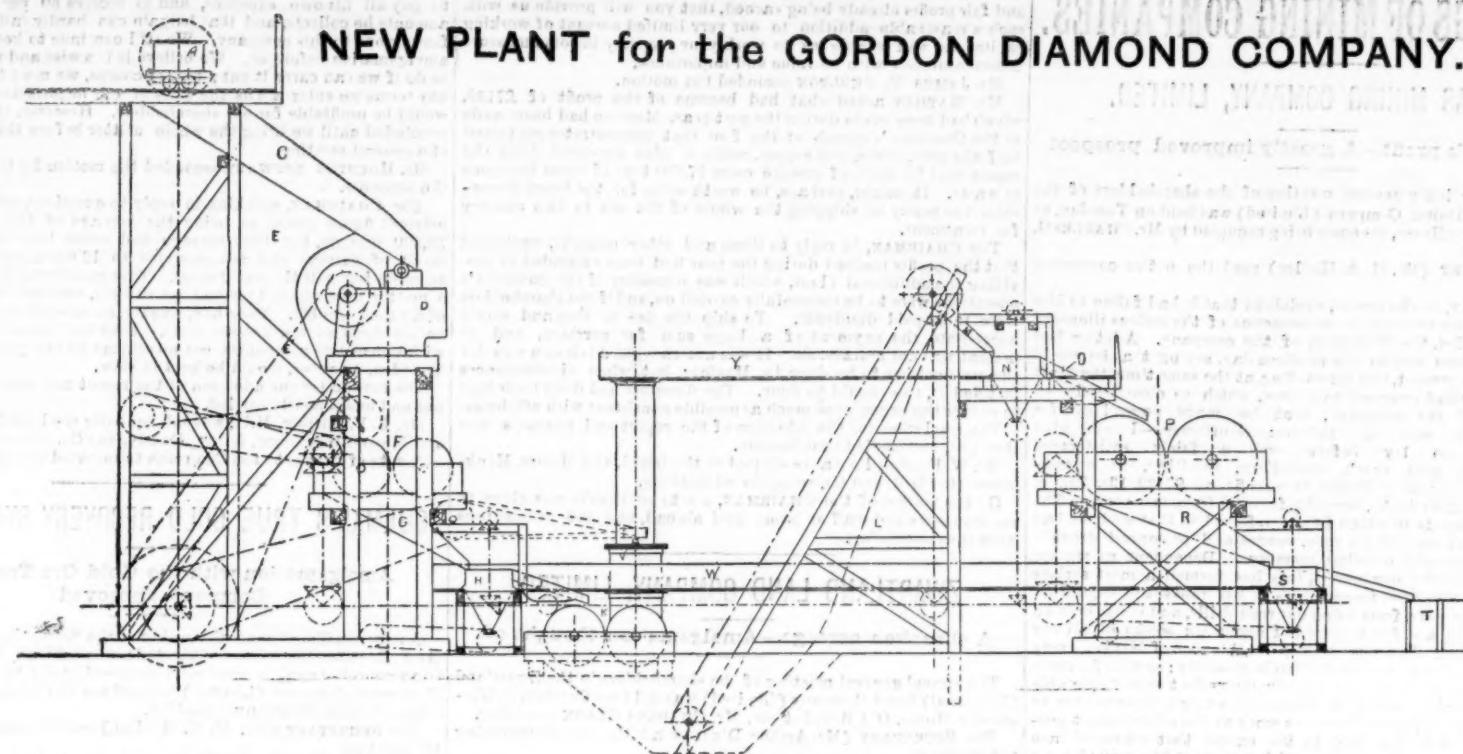
In my last letter I stated that the way was being prepared for the introduction in Paris of West Australian mines. The first one to make its appearance is the Londonderry Gold Mine, which is this week being quoted on the "parquet." It is singular that the investor refuses to snap up any new scrip, whatever may be its standing on the Stock Exchange, and it is only when the introduction of the shares has been followed by favourable reports from the mines that the scrip is taken up with any readiness. Investors prefer to pay a higher price for their shares afterwards, rather than not make use of their ground. It is also being sought now to divert the current of public money into other gold mining channels, though with only moderate success. An attempt is being made to push some of the United States gold mines to the front, and De Lamars have undergone a satisfactory rise. This, however, is more of a speculative movement, as the ordinary investor will have nothing to do with American gold mines, in which so much French capital has been lost. A great deal of secrecy is being observed as to the result of prospecting operations at Watana, in Siam, which is expected to give such brilliant results. M. Moreau, the engineer who was lately sent out to inspect the property, is believed to have cabled home very favourable news; and, on the strength of this, the value of the shares has advanced to 85 francs—a really remarkable figure, considering that the prospecting work is only yet in its initial stage. It is true that those who are interested in the concern think that the Watana Mine will prove to be one of the richest yet opened out.

A company of engineers and other gentlemen interested in the auriferous mining industry assembled this week to witness the working of a model machine, invented by Lieutenant Walter B. Bassett, for extracting gold from the auriferous iron sands of New Zealand. Mr. Bassett has secured the concession of a belt of iron sands containing gold estimated at 2 dwts. to the ton. As the gold exists in exceedingly fine particles, it has been found impossible to separate it by the ordinary process of washing, and Mr. Bassett hit upon the ingenious idea of separating the iron sands from the gold by magnetic attraction. The machine is in the form of an enormous cylinder, containing a wheel composed of magnetised iron sections. The iron sand is fed into a hopper automatically, and when partly in suspension in the water the iron is caught on the magnet, while the gold and other matter falls into a receptacle at the bottom. When the wheel has made half a revolution the electric current is interrupted, and the iron falls into a receptacle on the other side. These receptacles empty themselves automatically by the weight of their contents. The gold is then washed in the usual way. It is proposed to work the deposits with three machines, each one capable of dealing with 100 tons of iron sand in a working day of 20 hours. One great advantage of this system is its economy. Upon the concession referred to is a 160 acre lake, which furnishes all the water and power that are needed. The current is supplied by dynamos driven by turbines. Mr. Bassett states that with a capital of £70,000 the Auriferous Iron Sands Gold Extraction Company can make a profit of £86,000 a year, and this, too, during a period of at least ten years.

An important discovery of ironstone has just been made in the department of the Isère by the Société d'Hévéroux, a concern that was formed a little while ago with a view of prospecting for a continuation of the Saint-Etienne coal basin. During the boring a bed of ironstone was cut through at a depth of 267 metres, but it seems for the most part unworkable, owing to the presence of large quantities of shale. Further borings were then carried out in the neighbourhood, and altogether three different deposits were discovered at depths varying from 391 metres to 407 metres, all of them rich in metal and capable of being very profitably worked. In the first bed of 2 metres 90 centimetres in thickness, the ore contains 30 per cent. of iron and 25 per cent. of silica; in the second bed of 6 metres 73 centimetres there is 43 per cent. of iron and 20 per cent. of silica; and in the third bed of 70 centimetres the ore contains 38 per cent. of iron and 25 per cent. of silica. There is little or no sulphur or phosphorus. Besides this, there is a bed of manganese ore 2 metres in thickness, containing 34 per cent. of manganese and 25 per cent. of silica. It is expected that this discovery will have important consequences for the metallurgical industry of the Loire.

CARDIFF CASTLE.—Mr. Oxley, senior partner of Messrs. Oxley and Brasier, who are the consulting engineers to the Cardiff Castle Gold Mines, is now on his way home from Perth—in respect to the affairs of the company and on other business connected with West Australian gold fields. He is bringing with him the latest particulars respecting the new developments of the mines.

NEW PLANT for the GORDON DIAMOND COMPANY.



A.—Truck with diamondiferous ground from mine. B.—Gantry. C.—Grizzly shoot to bin E and crusher D. D.—Crusher. E.—Bin. F.—Sho t to first rolls (this shoot fitted with fan feeder). G.—Shoot to first pulsators. H.—First pulsators. I.—Second or intermediate rolls. K.—Second or intermediate rolls. L.—Elevator. M.—Shoot to second set of pulsators. N.—Second set of pulsators. O.—Screen shoot to last rolls. P.—Last rolls. R.—Shoot to last set of pulsators. S.—Last pulsators. T.—Launder for tailings. U.—High lift centrifugal pump. V.—Low lift centrifugal pump. W. and Y.—Launder for conveying water from pumps to pulsators.

THE MINERAL WEALTH OF SIBERIA.

COAL.

(Continued from page 327.)

A whole group of coal fields occurs in the north-eastern portion of the Kirghiz Steppes at 18 to 20 versts' distance from the left bank of the River Irtysh, and about 120 versts to the west of the town of Semipalatinsk. The presence of coal in the neighbourhood of the Irtysh was known at an earlier period, as in the sixties a gold mine owner, Mr. Kouznetsov, erected a copper smelting works on the left bank of the Irtysh, which consumed coal from a mine situated near Lake Dongolek-Sor. This deposit contains two seams of coal, whose total thickness is about 1 sagene. They are separated by a layer of clay slate 2 feet thick. The coal from this mine is black and very bright, rather dense, and gives a coke of good quality. This coal must be regarded as the best in the Kirghiz Steppes. The Ouzoun-Sor deposit is situated 8 versts to the south of the above mine, and the Oinak-Sor at 6 versts' distance to the south-east of the latter. The Oinak-Sor deposit includes several coal seams from 2 to 15 feet thick, but the seams are very distorted. The coal of these three and other adjacent outcropping seams can not only furnish the inhabitants of the steppes with fuel, but could also have an important significance for the steam navigation of the Irtysh and for the Siberian Railway, as well as for the metallurgical works of the Altai and Kirghiz Steppes.

Deposits of coal have been found in several places in the neighbourhood of Sergiopol, over a distance of 20 versts along the River Ayagouz and its tributaries. The following four are among these deposits:—1. The Spassk Mine on the left bank of the Ayagouz, above the River Baiboulak. Several thin seams of coal from $\frac{1}{2}$ to 3 feet thick were discovered here, the thickest of them being over 4 feet. This coal is not of particularly good quality; it is black, finely laminar, disintegrates in the air into a fine powder. It is only used as smithy coal. 2. The Krestovsk Mine, on the right bank of the River Ayagouz, in the upper sources of the Kyzyl-Chilik, is at 2 versts' distance from the Spassk Mine. The seam of coal, which was found at an inconsiderable depth, proved exceedingly thin, and the coal was found to contain a large amount of ash. 3. The Troitsk or Chekartinsk Mine lies at 8 versts' distance from the Spassk Mine, near the River Chekarta. The coal seams are here considerably thicker than in the Spassk Pit, and are as much as 1 sagene thick in some places; it is of good quality, and is used in smithies and for house heating. 4. The Voskresensk deposit is situated at 10 versts from the Spassk Pit, on the left side of the River Ayagouz above the River Chekarta. The inconsiderable exploratory workings made in this deposit do not give any idea of its extent or quality.

The above concise enumeration of the coal deposits of the Kirghiz Steppes, show that this region—which is so in want of fuel for the exploitation of its mineral wealth in silver, lead, and copper ores—may, apparently, be considered as fully guaranteed in this respect. But, at the present time, the production of coal has not only made no progress, but has even fallen. Although the production from 1880 to 1885 equalled from 1,000,000 to 1,635,000 pounds a year, it has considerably fallen in recent years, and in 1891 was only 86,800 pounds.

Graphite.

Deposits of graphite are known in Siberia in the Kirghiz Steppes, and in the Governments of Yeniseisk and Irkutsk. In the Kirghiz Steppes several deposits have been discovered, three of which, situated in the Kokpektinsk and Sergiopol districts, have been exploited, and the graphite sent from there to the Perm Steel and Gun Works. In the Government of Yeniseisk deposits of graphite were discovered in 1859 and 1863 by a Mr. Sidorov, in the Tournakhansk region along the rivers Nizhnaya, Tonngouzka, Bakhta, and Konpeika, the right tributaries of the Yenisei. At a distance of 200 to 500 versts up the Nizhnaya Tonngouzka there are four localities where graphite is found. This graphite is sometimes laminar and sometimes columnar, and occurs in beds from 1 to 2 sagenes thick between layers of clay slate which have been metamorphosed by the action of eruptive rocks, so that it may be supposed that this graphite has proceeded from the beds of Jurassic coal which abound in this locality. The graphite contains from 4 to 6 per cent. of clay; it is estimated that this deposit contains a store of 10,000,000 pounds of graphite. The excellent quality of this mineral has been recognised at both Russian and foreign exhibitions. The Tournakhansk mineral has met with particular praise from various

scientific and practical men; several foreign authorities have likened it to Cumberland graphite, and in America a series of comparative experiments proved that it excels the Ceylon graphite in purity. In 1877 another deposit of graphite was discovered by Sidorov on the Nizhnaya Tonngouzka, and 2000 pounds of picked graphite were extracted and sent abroad. Seventy thousand pounds of graphite have been extracted from the deposits discovered by Sidorov in 1861, along the River Kourieka, which falls into the Yenisei at 100 versts from the town of Tournakhansk. Out of this amount the following parcels were dispatched during the winter of 1863 to 1864:—1. Five hundred pounds direct along the River Pechora, over the northern marshes by reindeer, and thence by sea to London. 2. Five thousand pounds also by the northern route to the River Taz by reindeer; and thence by the Taz and Obi Bay to Oboorsk, and then by the Pechora. 3. Seven thousand pounds by Yeniseisk, Tomsk, and Tumen to Perm, and 1000 pounds by the same route to St. Petersburg. 4. Two hundred pounds from St. Petersburg to Hamburg and Wurzburg. In 1891, 10,000 pounds of graphite were extracted from the deposit on the River Nizhnaya Tonngouzka for the recently-formed Siberian Graphite Company.

In the Government of Irkutsk a deposit of graphite was discovered in 1842 by Mr. Aliber in Boutogolsk Golts, in the Tounkinsk Mountains, on the spot where the Rivers Irkout, Kitoi, Belaya, and Oka take their source. Here the graphite apparently occurs in reniform masses, in druses, and in veins in alternate beds of crystalline limestone and laminar granite, with quartz veins. In 1858 Aliber laid out the Mariinsk Graphite Mine on this spot and obtained a graphite of excellent quality, and samples exhibited at the London Exhibition of 1862 proved it to be in many respects better than the English. Aliber entered into relations with the well-known pencil maker Faber, and began to supply him with considerable amounts of graphite. At the present day, however, this mine is only worked to supply graphite for making crucibles at the Irkutsk gold melting house.

Naphtha.

The occurrence of naphtha has long been known on the northern extremity of the Island of Sighalien, and it has now also been found near the Gulf of Nabilsk, which is accessible to the largest ocean vessels. According to the researches of Mr. A. Batsevich, mining engineer, the naphtha deposits of this island extend in a meridional direction, towards the sea of Okhotsk, where they occur at a distance of 5 to 25 versts from the shore. The specific gravity of the naphtha, extracted from wells up to 3 sagenes deep over various areas, varies from .890 to .895, and the daily yield is several pounds. Judging from the specific gravity, and the results obtained by distillation, the Sighalian naphtha resembles the Caucasian. The occurrence of naphtha springs over a considerable area, and their abundance, combined with the thickness of the superficial and subterranean deposits of bitumen (asphalt of recent formation) and the daily flow of naphtha in the wells, made Batsevich conclude that there must be more or less considerable stores of naphtha at a certain depth below the surface.

Salt.

In Western Siberia, salt is exclusively extracted from the self-depositing lakes, which occur in considerable numbers in the southern portion of the region—namely, in the southern regions of the Government of Tobolsk, in the south-western portion of the Government of Tomsk, and in the Akmolinsk and Semipalatinsk provinces. This area, which is included between 47° and 55° north latitude, and 63° and 73° eastern longitude (from Paris) is a low-lying plain, which was once the bottom of a sea basin. In the northern portion of this salt basin, which embraces the Barabinsk and Kouloundinsk Steppes, the salt lake always contain a more or less considerable amount of other salts than common salt, the chief being sulphate of sodium. There is no lake in the region of these steppes, which gives pure chloride of sodium, and, on the contrary, there are many which contain rich layers of Glauber salt only. But in the southern and south-western portion of this salt basin, which embraces the arid steppes of the Akmolinsk and Semipalatinsk provinces, the deposited salt is, in the majority of cases, distinguished for purity of chloride of sodium, and these lakes are the chief sources of its production.

The salt lakes of Western Siberia may be divided into four groups according to their characteristics:—1. The lakes which contain more or less considerable beds of chloride of sodium, covered with a brine which deposits fresh layers of salt every year. Compared with the others, these lakes are the richest, and are the most important by reason of the vast stores of salt they contain. Among the many lakes in this category belonging to

the State, the chief is the Karyakovsk lake in the Province of Semipalatinsk, at 20 versts from the town of Pavlodar, and 28 versts from the Chernoyarsk landing stage on the River Irtysh. In this lake, which covers an area of about 20 square versts, the surface is covered by layers of salt for a space of about 9 square versts, and the thickness of these deposits reaches to as much as half a sagene. The annual yield of salt from this lake amounts to one million pounds. The salt from the Karyakovsk lake is distinguished for its high quality, and is considered the best in Siberia. 2. The second category includes those lakes which contain considerable amounts of strong brine which annually deposit a layer of pure chloride of sodium, varying from 1 to 4 inches in thickness. Although these lakes, compared with the preceding, have only a secondary importance, nevertheless, they are capable of yielding immense quantities of salt. To this category belong the lakes exploited in the Government of Tomsk, the most important of which are the Borovya and Bourlinsk lakes.

The Borovya lakes include four lakes:—1. The Pechatochno or Maloe Lomovo; 2, the Kochkovatos; 3, the Bolshoe L Movo; 4, the Malinovos lakes. They are situated on what is called the Salt Steppes. In recent years, these lakes have yielded up to 600,000 pounds of salt. The Bourlinsk lake is one of the most important sources of salt in Western Siberia. It resembles the Borovya lakes in the mode of occurrence of its salt, and is only distinguished for its size, it being over 30 versts in circumference. The Bourlinsk lake belongs to the number of those which dry up periodically. There are many such lakes in Siberia. It has a great industrial importance, owing to its situation in proximity with the chief trading routes of the steppes, by which the peasants of the grain-bearing regions of the Government of Tomsk carry their grain to Pavlodar for sale to the Kirghiz. The salt from the Bourlinsk lake forms a return freight for these peasants who transport it to a further distance. Besides which, this salt is transported along the River Obi to Tomsk, and, further, to Achinsk and to Eastern Siberia. The annual yield of the Bourlinsk lake is about 14 million pounds. 3. The lakes of the third group are full of brine, containing a greater or less amount of other salts than chloride of sodium. They form a link towards bitter salt lakes. Owing to the comparatively little strength of the brine, the lakes of this category do not, as a rule, give a deposit every year, but only under suitable atmospheric conditions, and the salt then obtained is, naturally, of a poor quality. These lakes, which are numerous and of large dimensions, now scarcely have any importance as a source of national provision. They could only give a pure salt, fit for consumption, if they were exploited by the artificial basin system, which, owing to the number of excellent self-depositing lakes cannot, as yet, thrive in Siberia. To this category belong many lakes in the Government of Tomsk, and all those situated in the Barabinsk Steppe, besides a considerable number of the Kirghiz lakes. 4. Lastly the fourth group comprises the bitter salt lakes, containing considerable layers of Glauber salt, which are constantly increasing in thickness, owing to the annual deposition of fresh layers from the brine. The Bolshoe Marmyshansk lake is representative of this category, and is the only one of this class now under exploitation. It yields about 100,000 pounds of salt a year. The Bolshoe and Maloe Marmyshansk lakes are situated in the Kouloundinsk Steppe at 200 versts distance to the south-west of Barnaul, along the road to the Borovya lakes, and present immense deposits of Glauber salt, whose thickness at a distance of 60 to 100 sagenes from the shore is already 2 feet. Taking into account that the surface of the Bolshoe Marmyshansk lake is over 4 and of the Maloe over 2 square versts, the most moderate estimate gives a supply of not less than 50 million pounds in the former and 25 million pounds in the latter lake. The Marmyshansk salt is partly consumed at the soda works at Barnaul, partly at the Altai Works, which use it as a flux in smelting the argentiferous lead ores, and partly at the glass works.

Eastern Siberia abounds in salt, but the richest deposits of rock salt and the best salt springs are situated in poorly-inhabited localities, so that its transport to the markets, owing to the want of proper means of communication, is hampered by great difficulties, which render it very expensive. Therefore, many of the sources are not exploited, and await the time when the economical conditions of the region will give the possibility of working them.

(To be continued.)

MEETINGS OF MINING COMPANIES.

CHIAPAS MINING COMPANY, LIMITED.

A good year's profit.—A greatly improved prospect.

THE sixth ordinary general meeting of the shareholders of the Chiapas Mining Company (Limited) was held on Tuesday, at Winchester House, the chair being occupied by Mr. CHARLES G. HALE.

The SECRETARY (Mr. H. A. Hedley) read the notice convening the meeting.

The CHAIRMAN, at the outset, explained that it had fallen to him to preside over the meeting in consequence of the serious illness of Mr. E. A. Pontefex, the Chairman of the company. A letter had been received from him on the previous day, saying that he would be unable to be present, and forwarding, at the same time, the draft of the speech he had proposed to deliver, which so clearly reflected the position of the company, that he made no apology for reading it. It was as follows:—Gentlemen,—I am glad to be able to lay before you a fairly satisfactory account of our past year's operations, resulting, in circumstances of exceptional difficulty, in a profit of £7139 13s. 7d., in addition to the £192 4s. 1d. brought forward from last year. The exceptional difficulty to which I have referred is that we have had to contend with a year of the most severe and prolonged drought known in Mexico with living memory. Dependent as we are upon the rainfall for our power, this has formed a most serious drawback to our success, inasmuch as it has prevented us, during nearly the whole year, from using our rock drills, and it has created an absolute stoppage for a period of about six weeks of all our milling operations. The mining labour in this part of Mexico is very inefficient in quality as well as limited in quantity; so that for energetic exploratory work we are mainly dependent upon being able to use our rock drills, and their stoppage is a very serious matter to us. For this reason, the development work at the mine has not progressed during the past year to the extent that we could have desired; but, nevertheless, so far as it has gone, it has opened out a very satisfactory amount of stoping ground, and has proved that we have a most valuable deposit, which extends over a large area of ground, and the ore found in it is both rich and abundant. The profit we have obtained has been made in spite, also, of the fact that during the whole of the year in question we have not been able to extract more than about one-half of the metallic contents of the ore. On pages 28 and 29 of Mr. McCarthy's report you will find that he goes fully into this question, and explains the difficulties of treatment, which appear to be due largely to the considerable proportion of garnet which he finds in the ores. In order to crush the garnet to the proper size to permit of the separation of the mineral from the matrix, the gold—some of which already exists in very fine condition—is brought into a fine state of division that much of it floats away with the water, and passes away with the tailings, as also do much of the silver and copper; but, of course, the gold is the most important metal to save. At our last annual meeting you were told that we were sending out stamps and some Evans' tables and other machinery, for the purpose of retreating these tailings, and you were further told that a profit of at least 10s. per ton might be confidently expected from the treatment of the tailings. We have had two months' experience of the working of this machinery, and we find that not only is our estimate fully borne out, but is somewhat exceeded, and that we are making a profit of more than 13s. per ton on the tailings treated. The cost of treating them has been found to be 1s. 8d. per ton, and the value of the gold produced 1s. 7d. Had this machinery been at work during the past year it would have added something like £4000 to our profits, which would have been still further augmented had we been able to work the water power which we have since brought under control. For this purpose we have laid down a large quantity of 17 inch and 18 inch steel riveted pipe to a point higher up the Pine Creek, so as to obtain greater fall. This will be very serviceable during the current year. The mine manager dwells so much in detail upon the various points connected with the mine itself that it is not necessary for me to take up much of your time by supplementing his remarks. Suffice it to say that not only has the result of our operations during the past year been to prove the great value of our deposit on the Santa Fé side of the creek upon which we originally depended, but it has also proved the extent and great value of that on the Providencia side, where, as Mr. Macarthy tells us, the main bulk of our mining rights lie. He tells you that the Providencia Mine has vastly improved in value, yielding a high grade of ore, and that it continues to look very promising in regard to future prospects. Our mining deposit has been proved to be large, and the ore is abundant and rich, and all the difficulties of transport, &c., have been overcome. It only rests for us to work the mine energetically, so as to produce such quantities of ore as may be commensurate with the amount of capital expended on the mine. This can only be done by extending the scope of our operations, and mainly by deep mining, for which we need pumping and winding machinery, which we asked you for in the circular to which I have alluded. To pay for this machinery we must either continue the very unsatisfactory course of withholding dividends from the shareholders for the purpose of defraying such capital outlay, or we must ask you to take up some further proportion of the capital which was originally offered for subscription. I am sorry to say that the response to the circular issued on January 26 last year was exceedingly inadequate. In point of fact, it almost drew a blank, only £470 preference shares having been applied for in consequence of that circular, the bulk of which I obtained personally. I really can imagine no better investment than these shares afford, taking into account both the good security they offer and the high rate of interest they pay. The terms of the issue are that the shares shall bear a preferential dividend of 10 per cent., that they should also rank *pari passu* for dividends received on the ordinary shares, so that if the ordinary shareholders receive 10 per cent., the preference shareholders would receive 20 per cent., and, in addition, they should be preferred as to capital; so that in the event of liquidation, they would form a first charge on the available assets of the company. We practically have no debt, excepting only our commercial agent's loan. This stands in the accounts at £3600, but we have during the past month paid off £1000 of it, and we propose to pay off the balance by June next. I do hope, therefore, in your own interest, that you will make an adequate response to the opportunity now afforded you. We have, unissued, of the original capital 29,043 shares, on 20,252 of which a preference has been attached. If £10,000 to £12,000 of this were taken up, it would put us in a position which would not only free the profits already earned for the purpose of dividends, but would facilitate the earning of large profits in future. The money would be employed in doubling the number of stamps which we have already found to be effective in the treatment of the tailings, and in providing the pumping and winding machinery required for the deep mining, which we shall have to undertake as soon as our surface levels are exhausted, and, in fact, which ought to be undertaken long before our surface levels are exhausted, so as to ensure the continuity of the company's operations. The necessity for the additional stamps is made more urgent by the fact that we have no more room in which to store any additional tailings that we may have, and that the retreatment machinery already sent out is only capable of dealing with half the quantity of tailings which are being produced, so that in future one moiety of these must run to waste. That is to say that even with the same output of ore from the mine, which we have had during the past year, we should in future be absolutely throwing away stuff which we know could be made to yield us a profit of some £5000 in gold alone, to say nothing of the value of copper and silver remaining in it. I feel confident that you will be satisfied in continuing such a wasteful course; but, now that the existence and extent of the deposit have been sufficiently proved, the

method of treating it settled, the difficulties of transport overcome, and fair profits already being earned, that you will provide us with such reasonable addition to our very limited amount of working capital as will enable us to work your property in some measure commensurate with its value and importance.

Mr. JAMES W. SKELTON seconded the motion.

Mr. MATHEY asked what had become of the profit of £7139, which had been made during the past year. Mention had been made in the Chairman's speech of the fact that concentrates contained half the gold, silver, and copper, while it also appeared from the report that for want of storage room 17,000 tons of them had gone to waste. It might, perhaps, be worth while for the board to consider the policy of shipping the whole of the ore to this country for treatment.

The CHAIRMAN, in reply to these and other remarks, explained that the profits realised during the year had been expended in providing the additional plant, which was necessary if the company's operations were to be successfully carried on, and if the shareholders were to be paid dividends. To ship the ore to England would necessitate the payment of a large sum for carriage, and at present was not practicable. It was not thought advisable now for the ore-smelting to be done in Mexico; but, when circumstances justified it, this should be done. The directors had done their best to reduce the expenses as much as possible consistent with efficiency.

The resolution for the adoption of the report and accounts was then put, and carried unanimously.

Mr. W. Frecheville was re-elected to the board, and Messrs. Monkhouse, Goddard, and Co., reappointed auditors.

On the motion of the CHAIRMAN, a vote of thanks was given to the managers and staff at home and abroad, and the proceedings were thus concluded.

ZWARTLAND LAND COMPANY, LIMITED.

A shrunken acreage.—Amalgamation thought of.

The annual general meeting of the shareholders in the Zwartland (Transvaal) Land Company (Limited) was held on Tuesday, at Winchester House, Old Broad-street, Mr. CHARLES CLARK presiding.

The SECRETARY (Mr. Arthur Dixon) read the notice convening the meeting.

The CHAIRMAN said: I now beg to move:—"That the directors' report and accounts for the year ended December 31, 1894, as audited, be received and adopted and entered on the minutes." As regards the accounts, there is very little indeed that need be said. They are very simple and brief. There is one item of calls unpaid at the end of the year of £347. That call was not payable till Jan. 10, and this item simply shows that the bulk of the call—which amounted to a considerable sum of money—had been paid in anticipation of the due date; and of that £347 everything, with the exception of about £70, has since been paid; so that we have now a very satisfactory and an almost clean sheet with regard to calls. The sundry creditors—£29 11s. 2d.—consists chiefly of the balance due at the end of the year to our agents in the Transvaal, and one other small amount. On the other side of the accounts, the directors' fees show a reduction of £25 in consequence of the number of directors having been reduced as compared with the previous year. There is an item under the heading of Pretoria office, contribution to the war expenses, £10. You will notice that in their report the directors make reference to the war tax of £20 per farm which was imposed on most landowners; but, after careful enquiry, the board decided that we were not called on to pay that tax, nor has it been demanded from us; but we ascertained that the banks and other financial institutions and firms carrying on business in the Transvaal had thought it an expedient and proper thing to make a voluntary contribution towards the war expenses which had been incurred, and your directors, therefore, sanctioned a payment to be made by their agents of £10 as a contribution. That explains the item to which I have referred. I don't know that there is anything else in the accounts requiring mention from me. With regard to the report, as we have always told you, the work of surveys and re-inspections is not under the control of the company or its agents, and, therefore, we have no reason in particular to complain. You will see that we state that all our farms in the Waterberg district have recently been re-inspected, and since this report was issued we have received a letter from our agents, giving us the exact area of the 13 farms so re-inspected. The particulars of these show in many cases a reduction, and in some cases only an increase compared with the total acreage mentioned in the report that we issued some three years ago. The total reduction amounts now to 600 morgen less than the statement we published of Commissioner Evans, showing the reduction on each farm. Our agents state that these reports are lying at the Surveyor-General's office for inspection, and any protest must be laid with the executive council by April. The acreage of all the farms in this section has been cut off most unmercifully, and everybody is crying out against it; but we are advised, on the best legal authority here, that nothing can be done. I am afraid that that is the case, and that it will be useless spending any money on that which may turn out to be futile. Early in December last the directors invited 10 or 12 large shareholders to meet them in the company's office in order to confer with them as to the position of the company, and as to the policy which it was expedient to follow in the immediate future. We had a smaller attendance than we invited, but we had a very full and frank discussion, and, after some time, the meeting expressed the opinion that no material change was desirable in the policy which the board had been pursuing—namely, to hasten on the work of re-inspection and prospecting as much as possible—in fact, the same policy which we have set out in this report, and which we now submit for your approval. At the present time you will see that there are only six of our farms which have not been re-inspected. There are five in the Lydenburg district which we have been anxiously looking forward to, which we have always thought to be of considerable importance, and which we still hope afford evidence of something valuable in the future. We have had some negotiations with the agents on the subject of having a representative to accompany the commission to look after the interests of this company, and in the letter received from our agents in reply to that, they say:—"With reference to the arrangements for your representation at the re-inspection of your Lydenburg farms, it would be too costly a matter to send a man up specially for that purpose. We are well acquainted with the surveyor, Mr. J. Brooks, who will accompany the commission, and believe him to be a straightforward man. We propose to get him to represent your interests, together with our own and other clients for whom we are acting. This will not be expensive, and, as he will have that section of the country allotted to him under the general surveyor, we consider that it will be the most satisfactory arrangement we can possibly make." With regard to the Siliati Railway, and the position of our Lydenburg farms, our agents say: "We note your remarks under this heading. We can only say, in reply thereto, that we have Troye's map in our office, and that the rough tracing was taken from that map. The positions of the railway on that map are as indicated thereon; but, as we then pointed out, until the general survey is completed, no one can be certain of the exact positions they will occupy." Reference is made in the directors' report to the probability of the Nylstroom farms being benefited by the construction of contemplated railways. I may state that the *Gazette* of the South African Republic, dated February 20, contains an advertisement inviting propositions for the construction of a railway between Pretoria and Pieterburg. We have not yet succeeded in obtaining any rents from the Kaffir huts, but arrangements are in progress with a gentleman named Mr. Lomas, whose name was brought before us by our agents in the Transvaal, and who was subsequently recommended highly to us as being a most satisfactory man. We accordingly placed ourselves in communication with him. He points out that it will not be possible for one man to visit all our scattered farms, and he proposes to make arrangements by which what he is unable to undertake himself in

that way will be done by people whom he knows. His proposal is to pay all his own expenses, and to receive 50 per cent. on the amounts he collects, and that bargain can hardly fail to be a satisfactory one to this company. We still continue to keep the idea of amalgamation before us. We believe it is a wise and prudent thing to do if we can carry it out; but, of course, we must take care that any terms we entertain as the basis of our negotiations are such as would be profitable for our shareholders. However, nothing will be concluded until we bring the whole matter before the shareholders at a general meeting.

Mr. HUONSTON STEWART seconded the motion for the adoption of the accounts.

The CHAIRMAN, speaking in reply to questions, stated that the original figure given as being the acreage of the 13 farms was 38,000 morgen, but that acreage had since been reduced as the result of surveys and re-inspections to 12,600 morgen—a morgen representing a little over 2 acres. That considerable reduction was a matter over which they had no control, and had been the cause of all their trouble. They had, he said, no scheme of amalgamation before them at the present time. They had been in negotiation with one or two companies, but no scheme had as yet been framed. The idea, however, would be kept in view.

The motion for the adoption of the report and accounts was then put and unanimously carried.

Mr. R. V. Barrow, M.P., was subsequently re-elected as a director, and Messrs. Woodburn, Kirby, Mundy, and Co., as auditors.

A vote of thanks to the Chairman terminated the proceedings.

SULMAN'S TRUE GOLD RECOVERY SYNDICATE.

Amalgamation with the Gold Ore Treatment Company approved.

An extraordinary general meeting of the Sulman's Float and True Gold Recovery Syndicate (Limited) was held on Tuesday, at 6, Gracechurch-street, to consider proposal made by the Gold Ore Treatment Company (Limited) to purchase the assets of the syndicate.—Colonel ENGLEDURR presided.

The SECRETARY (Mr. M. H. Moulton) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—I would ask your attention to a few remarks relative to the proposed amalgamation of our syndicate with the Gold Ore Treatment Company, which has been formed to work the Sulman-Teed process for the extraction of gold from its ores by the agency of bromo-cyanogen. In many mining countries our soap process will greatly enhance the value of the tailings and slimes and so increase the returns of the bromo-cyanogen working; but, on the other hand, there are many localities—such, for instance, as West Australia—where the soap could not be used on account of the salt and hard water, but which would be no drawback to the use of the bromo-cyanogen. Therefore, in discussing the question of the purchase consideration, it should be borne in mind that the Gold Ore Treatment Company has a more valuable and generally more useful patent than we have, and the price must be considered accordingly. It was thought at one time that a working arrangement might be come to between the two companies; but your board finally decided that such would be very complicated and difficult to carry into effect; also it would necessitate our raising more cash capital. It was, therefore, resolved to place the offer of the Gold Ore Treatment Company before you. The Gold Ore Treatment Company was formed in December, 1894, with a nominal capital of £50,000 in £1 shares, of which about 40,000 have been issued, and the 5000 shares to be paid for our rights will come out of the remaining unissued capital of the Gold Ore Treatment Company. We have issued at the present time 3977 shares; so that if this deal takes place we shall receive shares of the other company to the amount of about a fourth more than our original holdings. As regards the prospects of the Gold Ore Treatment Company, they are certainly good. The leading mining engineering firm in Western Australia has paid a large sum in cash to secure the rights for that colony, and is under agreement to form a large company, with £150,000 capital, to work the patents; £50,000 of this will be working capital. The Gold Ore Treatment Company will hold a large interest, which it insists on taking wholly in shares. Similarly, in South Africa, negotiations are in progress, and Mr. Sulman is now on his way to the Rand to superintend the starting of the process. A proposition has also been made by the Mexican Gold and Silver Recovery Company to work the Mexican patents, and that company is about to make practical tests with a view to an extensive use of the Sulman-Teed invention. Negotiations are also in progress for the use of the bromo-cyanogen process in the other colonies of Australia, in America, Canada, New Zealand, and on the Gold Coast; so that there are very great probabilities of good business, which must enhance the value of the shares. Probably many of you have not heard the various accounts and descriptions of the Sulman-Teed invention. Its particular value is the accelerating effect caused by the use of bromo-cyanogen, which does in a few hours what is effected by the ordinary cyanide treatment in a much longer time under most favourable conditions, and, more important still, it enables impure and refractory ores to be treated, which the MacArthur-Forrest process cannot touch, thereby enormously increasing its scope of operations. I will here quote from a paper read recently at the Institution of Mining and Metallurgy, as giving a few instances of the success attending the use of the Sulman-Teed invention.

Pestarea pyrites concentrates, of 18 dwt., 18 grains, leached for 15 hours with 0·5 per cent. potassium cyanide alone, yielded 34 per cent. extraction, whereas by adding thereto 0·25 per cent. of Br Cy, in a parallel experiment, 91 per cent. of the gold was obtained in the same time. Half a ton of Australian pyrite concentrates (from the Charters Towers fields) was submitted to parallel tests with our solvent and ordinary cyanide. The ore had already undergone amalgamation treatment in Bordan pans, the original assay of the finely-ground product showing 3 oz. 15 dwt. of gold. Using our solvent (of a strength of 0·5 per cent. potassium cyanide with 0·25 per cent. Br Cy) in 6 hours the gold contents had been reduced to one-half, and in nine hours only 3 dwt. remained in the exhausted tailings. With cyanide alone of 0·5 per cent. the leaching of a similar bulk of ore was continued for 12 hours, and the liquor was again and again renewed, owing to the rapid consumption of the cyanide. At the end of the work the assay of the tailings showed that 8 dwt. still remained in them. We thus obtained, with a much smaller expenditure of solvent, a far better extraction in nine hours than the MacArthur-Forrest process achieved in six days. Hungarian pyrite concentrates: These were partially roasted, but still contained about 75 per cent. of mixed sulphures, and from 2 per cent. to 3 per cent. of copper, assaying 11·5 dwt. of gold. 20 hours' leaching with our solvent on a basis of ½ per cent. cyanide with Br Cy, reduced the tailings to 3 dwt., while a parallel test with plain cyanide afforded practically no reduction. A well roasted sample of similar ore gave an original assay value of 29 dwt.; on treatment with our solvent it was reduced in 24 hours to 1 dwt., 23 grains, whilst by the MacArthur-Forrest process 12 dwt., still remained in after 36 hours. This experiment was also on a scale of ½ ton. A shaking test upon a sample of Canadian arsenical pyrites was made with 0·3 per cent. K Cy and 0·2 K Cy + 0·12 per cent. Br Cy. Half-an-hour's agitation of the ore (which originally assayed 7 dwt. of gold) yielded, with cyanide alone, tailings assaying 3 dwt. 22 grains; and with our solvent 1 dwt. 20 grains of gold, or extractions of 44 per cent. and 75 per cent., respectively. An Indian pyritiferous ore assaying 10 dwt. 12 grains gold per ton, was submitted to treatment by K Cy solution of 0·2 per cent. strength, and also to one of 0·2 per cent. K Cy, with 0·08 per cent. Br Cy. After 12 hours leaching the tailings from the first operation gave 9 dwt., 18 grains, whilst in the second case the assay showed only 8 grains, or a reduction of 95 per cent. Conglomerate ore consisting of quartz with limonite, of a value of 17 dwt., leached for 15 hours with a 0·3 per cent. K Cy and 0·18 of Br yielded tailings assaying 14 grains, or an extraction of 96 per cent. Australian pyritiferous ore, containing copper and antimony, original assay, 12 dwt., 12 grains gold; on being leached for 24 hours with 0·45 per cent. K Cy, 0·2 per cent. Br Cy, yielded an extraction of 90·3 per cent. South American tailings, containing much pyrites and a little galena, very coarsely crushed—original assay, 6 dwt., 13 grains of gold, 7 dwt., 20 grains of silver, 1 cwt., was leached with 0·1 per cent. K Cy and 0·5 per cent. Br Cy. After five hours' extraction the tailings gave 3 dwt., 6 grains of gold and 1 dwt., 23 grains silver. On leaching in gill next morning (19 hours) the tailings were reduced to 1 dwt., 23 grains silver and 1 dwt., 23 grains gold. New Zealand silver and gold ore. The original assay of this ore was: Gold, 18 dwt.; silver, 36 ounces. A 24 hours' leach with 0·3 per cent. bromo-cyanogen solvent reduced the ore to 1 dwt., 4 grains gold and 25·5 ounces silver per ton. Another Australian ore which has given great deal of trouble up to the present, and upon which the MacArthur-Forrest process has been tried unsuccessfully, has been successfully dealt with by us. It contained from 4 to 5 per cent. of copper and a considerable amount of antimony. The concentrates from this ore assayed

1 ounce 5 dwts, 20 grains of gold, and after 15 hours' treatment with five per cent. K Cy and 0.25 per cent. Br Cy, yielded tailings of only 1 dwt, 4 grains gold per ton.
There is also the patent for the use of zinc collected from the fumes in zinc works, which is found much superior to the zinc shavings for precipitating the gold from the cyanide liquor. To the above will now be added the use of our soap patents, which will enrich the tailings and slimes, and so increase the yield of gold. I now beg to move:-

That the directors of the Sulman's Float and True Gold Recovery Syndicate (Limited) be authorised to accept a proposal, made by the Gold Ore Treatment Company (Limited), to purchase all the assets of the syndicate, the patents, rights, and existing contracts for £5000 in fully-paid shares in the capital of the Gold Ore Treatment Company, and that the directors be authorised to carry the above proposal into effect.

Mr. SANKEY seconded the resolution.

The CHAIRMAN, in reply to a representative of the Consolidated Gold Fields of South Africa, said it was the directors' intention, upon the purchase being carried through, to distribute the 5000 shares and put the syndicate in liquidation.

Mr. W. H. BARNETT did not consider £5000 would be sufficient compensation to the company, in view of the advantages which the Gold Ore Reduction Company would derive from the purchase. It was only one-tenth part of the capital of that company.

The CHAIRMAN pointed out that if the syndicate continued its operations, it would have to raise additional working capital. The value of the Gold Ore Treatment shares in the market was £2 5s. He felt sure that any effort which the directors might make to obtain a larger purchase consideration would not be successful.

The resolution was then put and carried unanimously, and the proceedings terminated in the usual manner.

GOLD ESTATES OF AUSTRALIA, LIMITED.

Description of the company's properties.

The statutory ordinary general meeting was held on Tuesday, at Winchester House, Mr. THOMAS PHILPORTS presiding.

The SECRETARY (Mr. Charles J. Cooke) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen—This meeting is called in compliance with the statute, and the business to be transacted is, therefore, merely formal. The company was registered on December 1, 1894. The subscription list opened on the 12th and closed on December 14 for London, and on December 15 for the country, and we went to allotment on December 17. There are 310 shareholders on the register. Of the issue of 60,000 shares set out in the prospectus, 16,000 were allotted to the Australian Syndicate in part payment of the consideration for the assignment of the concessions and options stated therein, and the remaining 44,000 shares have all been appropriated. Of the three options conveyed to this company, you are aware that we have purchased the "Trenton" and "Hall's leases." The former has already gone to allotment, and the latter will shortly be offered to the public. In the short time since the formation of this company two properties have been acquired—viz., the "Trenton" and "Hall's" leases. The Trenton Gold Mines have lately been sold by us to the Trenton Gold Mines (Limited), a company with a capital of £95,000. As quite a large number of Gold Estates shareholders have become shareholders in the Trenton Company, it may be interesting to you to know that a cable has lately been received from Austral stating that the reef at the 200 feet level is mineralised throughout, and showing coarse gold from wall to wall. Such a fine supply of water is flowing into the shaft at the 200 feet that the present pump can barely control it, and the developments have been somewhat hindered from the strong flow of water. A larger pump is being supplied, but in the meantime the shoot of ore at the 100 feet level is looking very well and is supplying ore to the mill. Crushings subsequent to February 20 are for the benefit of the new company, and a return for March is expected shortly. As soon as the 5 feet reef at the 200 feet is opened out for stoning, and stone from that part of the mine goes to the mill, we may expect to hear good accounts of its gold value. Mr. Deesley, our Australian general manager, is local director of the Trenton Company, and as this company holds a considerable interest in Trenton shares, it is important to know that our interests are in such good hands. I would only add that this mine is not a prospect, but a proved mine, equipped with machinery, and now crushing and producing gold. In fact, it paid its first dividend at the end of 1894. Now, a word as to Hall's leases, which we are about to bring out, and which bid fair to prove one of the finest properties in Western Australia. Its extent is very large, 122 acres on the line of the reef, an area sufficient for four or five large mining companies, i.e., provided it is all gold-bearing. Well, that is just what the reports say it is. In a letter to a friend, Mr. O'Driscoll, M.P., writes as follows:—"At Menzies I saw more gold in half a day than I have ever seen since I came to Western Australia. At Menzies the difficulty is to find a piece of stone which does not show at least a colour of visible gold. The majority of stones in the dump show nice heavy gold." And in the cable, dated March 15, he says about one of the claims (the Friday):—"Depth of shaft 45 feet, specimen ore; the width of the lode is 1 foot 4 inches. Too rich continue upraise. At present we are unable to treat such ore. Stone has been stolen. Have struck a rich ore body northern portion lease. Work has been stopped in the absence of (safe storage); would require to be stored; stone has been stolen; labour removed to water shaft. There is a good supply of water for stock, 150 feet, of the greatest possible value; is selling at 3d. per gallon." Mr. Matthews, a mining engineer of experience on these fields, says about this property:—"Almost all the lodes open contain gold, some being very rich." The assays from various parts of the property are as follows:—Sample from western cross lode, 2 feet wide, 29 ounces 8 dwts.; sample taken in bulk from lode, 18 inches wide, Block 147, eastern lode Selkirk, 1 ounce 19 dwts, 4 grains; bulk-sample taken from 40 tons of stone from dump No. 1 shaft, 4 ounces 4 dwts, 22 grains; sample taken from dump at shaft, Block 1410, Lady Shenton No. 1, 18 ounces 18 dwts, 22 grains; sample from Block 1411, western lode, 18 inches wide, parallel lode, "Friday," 3 ounces 18 dwts, 19 grains; sample from open-cut, 7 yards south of No. 2 shaft, lode 6 feet wide, and cutting 10 feet deep, 11 ounces 1 dwt, 17 grains; sample from cross lode, 20 inches wide, 4 ounces 11 dwts, 11 grains; sample from shaft, 18 feet deep, at south end of block 1410 Lady Shenton No. 1, 35 ounces 18 dwts, 16 grains; No. 1 on Northern Shaft, bulk sample taken across face of south drive, 6 feet 6 inches wide, 6 ounces 10 dwts, 16 grains; bulk-sample, taken from shaft at No. 1 surface, 25 tons, block 1411, "Friday," 24 ounces 16 dwts, 12 grains. Now, we are selling this magnificent property to a proprietary company—that is, a company which will gradually develop the reefs on the various claims, working some, and selling others off to subsidiary companies, and as the Gold Estates of Australia will retain a large interest in the new company, we shall profit by the formation of the subsidiary companies. A cable, dated March 18, says that a depth of 165 feet has been reached at one of the "Friday" shafts, where two very desirable things have been proved to exist. Firstly, a very rich reef, 2 feet 6 inches wide, averaging between 4 and 5 ounces gold per ton; and, secondly, a good supply of drinkable water. Now, if I say much more there will be very little new for you to read in the prospectus, and I think I have said enough to indicate what an extremely valuable property we have acquired. One important point I have not yet stated, which is that Menzies Reefs are in a slate formation. (Some of the samples of the quartz from the reef are here for your inspection.) I should also add that Hall's leases are situated at a camp known as Menzies' Find, and are located on the line of Menzies' reef. The distance from Southern Cross (the terminus of the Government railway) is about 135 miles in a north-easterly direction, and it is about the same distance from Coolgardie in a north-westerly direction. I do not think I have anything more to give you in the way of information, but you will no doubt be pleased to look at the samples. At the same time I will take this opportunity of expressing Mr. Millar's regret at his inability to be present to-day.

Mr. F. P. CROWTHER stated that the samples of ore exhibited was taken from the Robinson, the Friday, and the Lady Shenton claims. They were all taken from the deepest workings, and showed free gold in large quantities. The quartz was of a most congenial character; in fact, it could not be better. He also stated that there was already £15,000 worth of ore lying on the dumps at Hall's Leases.

A vote of thanks to the Chairman and directors closed the meeting.

THE WEST MALLINA GOLD MINE, LIMITED.

The amalgamation scheme approved.

An extraordinary general meeting of the West Mallina Gold Mine (Limited) was held at Winchester House, on Monday, for the purpose of considering, and, if thought fit, approving, an agreement submitted to the meeting for the sale of the undertaking and assets of the company to a new consolidated company about to be formed.—MR. H. CATESBY HOLLAND presided.

The SECRETARY (Mr. Charles Goodyear) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen—We are met here solely for the purpose of dealing with the resolution which has been read to you. The effect of this agreement will be made clear to you as soon as it is read by Mr. Rendall (our solicitor), who will perform that kindly office, and at the same time give any explanation that may be necessary. Shortly, the idea is this—to amalgamate this small company with a number of other companies, making one large company dealing with an area of some 150 mining acres, and with a working capital of over £100,000. So far as we are concerned I think it is a decidedly wise course, because, being bound up with other companies whose interests can be looked after at the same time as ours are being attended to, there can be no doubt that there must be, and will be, a great saving of expense; and, after all, the essential factor in the success of a mining company is the saving of expense in working. The various companies which are to amalgamate with us are all of them on rather a better footing than we are; that is to say, the shares of those companies stand at a premium, and, as we shall get shares in the new consolidated company, which will have a vast property, with a large working capital, and, I hope, a really first-class board, there can be little doubt in my mind that the shares that you will get in the new company will be very valuable. I will, however, just ask Mr. Rendall kindly to read the terms of the agreement to you, but will ask you, first of all, whether you would like the agreement read *in extenso* or only the epitome of it. It is a very long agreement, because it deals with a great variety of interests, and my own impression is that you will gather the contents of it better by an epitome. Mr. Rendall reminds me that there are agreements of a similar character being carried out in a similar way by the various companies which are to enter into this scheme of amalgamation. The company by which our company is proposed to be absorbed is called the Gold Mines of West Australia (Limited). That company proposes to absorb also the United Nicol, the Nicol, the Peewah Mine, the East Mallina Mine—which belongs to the Consolidated—and also the Oriental. I hear that some of these mines, especially the United Nicol, have other property, which is capable of being brought into the amalgamation.

MR. RENDALL (Satton, Omaney, and Rendall) having read the epitome of the agreement.

The CHAIRMAN said: If there is anything you gentlemen do not understand in the agreement we shall be happy to do our best to assist you. You will gather from it that we get for every one of our £1 shares a £1 share in the new consolidated company, and that the new company provides the whole of the working capital and pays all the expenses. I really think that exactly explains the whole position. £50,000 of working capital will be in the treasury of the new company upon its being started, and there will be an called working capital to the extent of another £55,000. I now beg to move the following resolution:—

That this meeting hereby approves an agreement expressed to be made between the West Mallina Gold Mines (Limited) of the first part, and a trustee for the above-mentioned new consolidated company of the second part, a draft whereof has been submitted to the meeting and initialled for purposes of identification by the Chairman of the meeting; and that the directors be and they are hereby authorised and directed to carry the same into effect on behalf of the company, with such modifications (if any) as they shall think fit.

SIR J. D. MACKENZIE, Bart., seconded the motion, adding that he felt convinced of the necessity of amalgamation, in order to save expenses.

The CHAIRMAN stated that both the Consolidated and the Nicol Companies had machinery on their mines, and that the Consolidated was already crushing. The amalgamation would take place by 1st May. The directors had not yet been chosen, but he understood that the West Mallina Company would have the right to nominate one director.

The motion was unanimously carried.

DON PEDRO GOLD MINING COMPANY.

A highly satisfactory state of affairs.—A greatly improved management.

A general meeting of the shareholders in this company was held on Thursday at Winchester House, the chair being occupied by Sir FREDERICK D. DIXON-HARTLAND, Bart., M.P.

The SECRETARY (Mr. R. Norton-Dawson) read the notice convening the meeting.

The CHAIRMAN said: Ladies and gentleman—The general progress of the mine since the new directors came into office has been entirely satisfactory, and it has been carried on in the best possible way, although it may appear a little slow to shareholders who are impatient for dividends. The work is all tending in the right direction, and, with the exception of an unfortunate accident, to which I will allude later on, I think everything is most satisfactory. One of the most important points we should like to be noted is that the mine, wherever it is opened out, shows the lode as large and as rich as ever. (Applause.) It was supposed that the Canon or branch lode, from which such good results were obtained in the past, when the old company paid such large dividends, had flattened in, but Captain Jeffrey is now satisfied that he has cut both this and the underlie lode in driving on the 50 fathom level. If so, we cannot be far from the rich shoot which was known as the No. 6 shoot, and which gave large returns from box work. As soon as the 60 fathom level is drained, and more ground laid open in the 50 fathom level, we shall have to increase our force considerably, in order to secure a much larger output of mineral. You must remember that this is most important, because fixed expenditure remains the same, whether we have a larger or smaller output, and it is this fixed expenditure that always tells against a company. Now this fixed expenditure will be the same when we get the increased output, and we hope then, instead of turning out the quantity of gold that we do at the present moment, that we shall be able to increase that three or four times. At the present time there is a reason why we should keep the output low. We are taken up very much with our reduction works. You will see by the report that a new system has been introduced, and it has worked most satisfactorily, but in addition to that the directors feel so strongly upon the subject, that through Mr. Tolputt's influence we have been able to send Mr. Harvey out to the mine. Mr. Harvey has, I think, the greatest experience of any man in this country with regard to this work. I expect he has arrived there by now, and I may say we anticipate very large results from the steps he will take when he gets to the mine. We hope to be able to save a very great deal more of the gold than we have done in the past. In the old assays it was shown that this company never obtained more than 65 to 70 per cent. of the gold in the jacquins. We are now getting more than 50 per cent. of the gold on the plates alone, and, therefore, Mr. Williams has by this means effected considerable saving in wages, &c. As to the

amount we have received from the mine, the shareholders will remember we stated that we expected to receive from £500 to £600 per month. As a matter of fact we have received nearly £6000, or very nearly £1000 per month. We look to this as only a beginning, rather than as the end of the work. The unfortunate accident to which I have alluded was, according to letters and telegrams received from the mine, caused by a piece of most culpable carelessness on the part of the pitman, who allowed the sand to accumulate. It is entirely a question of gross carelessness. The result, however, was not so bad as we had reason to anticipate, and it has now been remedied. We have received a telegram from the mine dated the 23rd of this month, stating that the pump was working satisfactorily, and that the shaft was in good condition.

We have, therefore, I hope, got over our trouble. With regard to the staff I may say we have been very well satisfied with the efficiency of the whole of the staff which has been sent out. With the exception of the case of the pitman all have worked to the satisfaction of the directors, and what is more, have done their work willingly. We are thoroughly satisfied with the way in which Captain Jeffrey came forward and repaired the engine at the time of this breakdown, and we are also very pleased with the manner in which Mr. Young, our business representative, is carrying on the business part of the affairs there. Before I leave this subject I wish to say I think the company is very much indebted to Mr. Tolputt and Mr. Atkey, who have taken charge of the mining department; I always expressed to you that it was a little strange to me. I understand the financial part of the business, but, to a certain extent, I do not understand the mining part. All difficulty in that direction, however, has been entirely overcome by Mr. Tolputt in the most able way, and with the greatest industry and zeal for the good of the company. Mr. Tolputt has never spared himself in any way whatever when anything could be done in the interests of the company. He has taken this matter up in a way that is of the greatest advantage to us, and my only regret is that he did not join us three or four years earlier, for I am quite sure it would have made an immense difference had he done so. (Applause.) Coming back to the matter of finance, I may say that the liquidation is nearly closed. The whole of the liabilities of the old company have been paid off, with the exception of debentures to the amount of £6500. At the present moment those debentures are not paid off because we have considered it better not to make calls, and so diminish our working resources. We propose, therefore, to issue a circular very shortly, in which we shall ask those debenture-holders to renew for short time: but, in case they are unable to do so, we wish to invite subscriptions for not more than that sum from any of the shareholders who like to take up any of these debentures. I can honestly say these debentures are a very much better security than ever before. We have enough money now to pay them all off and to be perfectly free, by making calls at once, but we consider it better to have a nest-egg in hand with which we could increase our works if necessary without making any calls upon the shareholders. The last thing I have to call your attention to is the question of the Morro de Santa Anna—the part of the old workings which was really the beginning of the Don Pedro Mine. We have the highest reports with regard to that mine, and we have been feeling that perhaps we may have moved too quickly into the new mines. There is no question of water there to begin with, and there will be very little difficulty with regard to timber. We are very strongly of opinion that we cannot do better than at once open the Morro de Santa Anna Mine. What we propose to do, if it is satisfactory to the shareholders, is to form a new company, to which we should sell that part of the property upon payment of £7500 in cash and £25,000 in shares. We thought that £7500 cash would pay off the whole of the debentures and leave us £1000 besides, and so should then be perfectly free. Besides having this £1000 in hand, the £25,000 in shares would allow us to give one share for every five shares held by holders in this company. If every shareholder were to take one more share, it would give him two shares for a sovereign, and it would float this new company, of which we think so highly. If it is the wish of the shareholders that this should be done, we shall be prepared directly we get a report from Mr. Harvey, and if it should be as favourable as we expect, to proceed with the flotation of the new company. We hope then to have two companies working very economically side by side, in both of which you will have an equal interest. Of course, it would not do for us to raise extra capital to take up this mine with Don Pedro shares at their present price, but there is a strong feeling that the Don Pedro shares are worth a great deal more than the present quotation. I do not care much about the Stock Exchange; if we can make dividends the shares will soon go up, and that is the point we have to look at. We have a very strong belief that before another year has passed we shall be able to do even better than we have ever hoped. I now beg to propose the following resolution:—

That the directors be authorised to assist in the formation of a new company, having for one of its objects the purchase and acquirement from this company of the Morro de Santa Anna property, and to sell and transfer that property to such new company, upon such terms, and subject to such conditions as they may think fit, and to do and execute all acts and deeds as they may consider necessary or expedient for carrying through such sale.

MR. H. TOLPUTT seconded the resolution. The Chairman had alluded to him in flattering terms, but he did not wish to take any credit which was not shared by his colleagues, who had all worked very pleasantly and harmoniously together, and were doing their best in the interests of the company. They had been favoured recently with a very able report upon Brazilian gold mines in general by the French Professor of the School of Mines at Ouro Preto. From this work he gathered that this Morro de Santa Anna reef was simply a continuation of the Ouro Preto reef, which extended a considerable distance through the company's property, and which there was every reason to believe would again be encountered when they got to the bottom of the jacotinas. Captain Jeffrey when at home called his attention to it, and assured him it was a splendid mine. Although the old mine had been shut up for 20 years, his colleagues agreed with him that they should spend a small amount of money in getting into the mine and seeing what it was like, and it had turned out far better than they had expected. From the actual results obtained by the Ouro Preto Company, it would appear that a return of less than 7 dwts. to the ton had given them a clear 10 per cent. on their capital after paying debenture interest, and very much heavier expenses than this company was likely to have to pay. As the Chairman had said, Mr. Harvey had gone out to inspect the works, and, since he happened by chance to have worked for many years on quartz lodes of very low quality in Australia, his experience would have a double value for the board. His report was expected to arrive shortly. In regard to the reduction, he had searched the records of the company and had not been able to find that a reduction officer had ever been on the mine since it was opened. An idea had prevailed that because there was no gold found in the pans in which the tailings were tested, there was really no gold in them at all. Mr. Harvey had sent over samples, and the speaker would be glad to show them to any of the shareholders who might care to accompany him back to the offices of the company after the meeting. Much of the ore had been found to be very largely coated with mica, and this was one of the difficulties they had to overcome. Samples had been selected for assay, and upon being tested there was found to be nothing refractory about them. Mr. Harvey's proposal for coining with the difficulty was that the tailings after concentration should be ground and then passed through very fine sieves. This, up to the present, had not been done. Samples of the tailings sent to this country gave 8 dwts. of gold to the ton—a very high value indeed. These samples had been carefully compared with some which had been in the company's offices for 15 years, which latter had given close on 6 dwts. to the ton, showing that the value of the tailings was fairly constant and that the company had been losing a great deal of gold in the past. In conclusion, he might express his thorough and cordial agreement with the remark made by the Chairman as to the manner in which the staff had served the interests of the company. Captain Jeffrey, especially deserved great credit for the way in which he had applied himself to the company's work ever since he had been back. The rest of the staff, too, were willing workers, and he hoped and believed that the

day was not far distant when such prosperity as they before enjoyed would be reached again. (Applause.)

Mr. BEVITT asked what the capital, nominal and working, of the new company would be.

Mr. THORPE asked how it was the whole of the debentures had not been paid off, seeing that the directors had at command a call of £1,60. The interest on the debentures—10 per cent.—was a high one, and it seemed to him that the company were losing a great deal of money by continuing to pay it.

Mr. KOPPERS asked why the old mine had been originally abandoned.

Mr. WALTER JACOB said it was very evident that the directors had put their shoulders manfully to the wheel to make their property a success. The only suggestion he had to make was that there should be a duplication of the pumping machinery at the mines, and that there should be closer supervision there.

The CHAIRMAN, in reply to these and other criticisms, explained that at the formation of the present company, the debts on the other side had exceeded expectation, and the necessity of meeting them, and the equal necessity of having a certain working capital in hand, combined with their reluctance to make frequent calls upon the shareholders, had decided the board to allow part of the debentures to remain. As to the proposed new company, of the success of which they were highly confident, the only thing that could be said at present was that the nominal capital would be £75,000, and the working capital £37,500, including the money they would have to pay for the property. As to the directorate and other details of formation, nothing was as yet settled.

Mr. R. E. STEPHENS suggested that it would be better to keep the Morro de Santa Anna Mine for the shareholders of the present company.

The CHAIRMAN agreed that this would be a highly desirable course, but considered it impracticable owing to the difficulty of meeting the debentures.

Mr. TOUZEAU, in reply to a SHAREHOLDER, said there was water-power on the property equal to 60 horse-power.

The resolution was carried with two dissentients, and a vote of thanks to the Chairman terminated the meeting.

SAN SALVADOR SPANISH IRON ORE COMPANY.

A satisfactory year's work.

The sixth ordinary general meeting of the shareholders of the San Salvador Spanish Iron Ore Company was held on Thursday, at the Great Eastern Hotel, the chair being occupied by Mr. JAMES ADAMS.

The SECRETARY (Mr. Newman Goldman) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—it is now my duty to propose the adoption of the report and balance-sheet, and in doing so I will first refer to a personal matter. You will notice that I am occupying the chair to-day instead of your late Chairman, Mr. Foster Webster. Now, I have been asked by one or two shareholders in letters whether his resignation was due to any friction on the board. I wish to say most emphatically that it was not. There has never been the slightest friction on the board in regard to the management of these mines. Mr. Foster Webster's resignation was entirely owing to purely personal matters. When it occurred I was voted to the chair, and the directors then appointed Mr. George Ross to fill the vacancy created on the board, and his election will have to be confirmed at this meeting. Perhaps I cannot do better than just run through the balance sheet as it is presented to you. You will see that our subscribed capital is £50,000, which is within a few hundred pounds of what it was last year. On the other side the purchases of the property and the capital expenditure comes to £28,770, showing that on these two items alone we have spent some £2700 or £300 more than we have the capital to provide for it. In addition to that you will see that the washed ore in stock on December 31 last amounted in value to £4,000. This, you will understand, represents some 12,000 or 13,000 tons of washed ore, all of which was absolutely paid for by the date mentioned, excepting as regards the more loading of the vessels. Therefore, you will see that our capital expenditure is fully £7000 more than the capital that we have had paid up. This accounts for sundry creditors, which amount to £100, less than having been entirely advanced for the use of the company. A large proportion of it has been advanced at the risk of the directors, who have been obliged to be surety for a great deal of money in that respect. It is on that account that we wish to show you to-day the necessity of adding to the existing capital of the company. The capital has always been too small, and as there are still nearly 4000 preference shares outstanding, we earnestly trust that the shareholders will assist the directors in taking them up. By this shortness of money we are not able to buy everything in the best market, and with more capital in hand we should be able to save probably a considerable sum of money in that respect. We use about 500 tons of coal in a year, and at present they cost us 20s, a ton on the quay; but if we could charter vessels out loaded with coal there is not the slightest doubt we should be able to save 5s. a ton on that item alone. That would make £100 which would be virtually another 5% per cent. on the dividend. The expenditure charged on the mines during the year was £1500, but in addition to that we have charged to the revenue account, maintenance of tram road, and washers £750. The agency charges and commissions we have largely reduced. The interest on loans is necessarily a large item, when we had to borrow as much as £5000 to carry on the work of the company. That I hope to see considerably reduced with your assistance before another year. Our engineer, in a letter that we had from the mines, refers to the repairs. He says "the whole of these have been charged to cost of production, with the exception of the removal of the cones of the trommels, which were charged to capital account. It is impossible to charge this amount to repairs. It should be separated over at least three years, and as you, I understand, intend to pay 2½ per cent., and place the remainder to credit of renewals, the matter is settled. I expect this to the auditor when in the company's office. I recommend the purchase of at least 100 additional wagons, as we have so many always under repair, and we should, if possible, have a wagon shop where repairs can go on in all weathers, and we badly want screw-cutting machines and a lathe." In respect of the future of this company, I think we may speak with very hopeful feelings. We have entered into large contracts for ore for the ensuing year. There is no question about it, iron ore will be very much more in request in the ensuing year or two than it has been in the past, because there are many countries that are laying down lengthy lines of railways, and there must be a large amount of iron used in shipbuilding in the next few years. Though I have pointed out the necessity of extra capital, you will see in paragraph 4 that the directors are of opinion that although they have hitherto maintained the machinery in a high state of efficiency out of revenue, a reserve fund to provide for depreciation should be started; and they further recommend that a sum of £700 of the available balance should be set aside for the purpose. "There will then remain the sum of £1224 unappropriated, out of which they recommend that a dividend for the past year at the rate of 2½ per cent. per annum should be paid upon the preference shares, which would absorb £1025, and leave £194 to be carried forward into next account." We think it is very desirable that that should be carried out, as having once commenced to pay dividend, we think that we ought to continue if possible to do so; and you must bear in mind that that money has been honestly earned during the past year. Also, for the sake of our Spanish shareholders, there is no question that will be a wise plan for us to pay the small dividend that we propose to do. I now beg to move, "That the directors' report and statement of accounts, as presented, be adopted."

Mr. HENRY DAVY seconded the motion.

The CHAIRMAN, in reply to Mr. CROSSMAN, said that in the previous year the sundry creditors amounted to £3526. With regard to the dividend, the company had £2039 of ore reckoned at quite a low a price as that at which it was now being sold. That money would, of course, come in. The directors had given the matter a great deal of consideration, and had come to the conclusion that it would be the wisest course to pay a dividend.

Captain HUNTER, R.N., concurred in the policy proposed by the directors. Personally he knew the property well, having visited it and reported upon it, and there was no question as to its value. He agreed with the Chairman that the capital was too small; an iron ore business required a large capital. Having been thus handicapped, he considered that the directors had managed the business in the best possible manner, and the shareholders ought to be thankful to them for it. He was so satisfied with the way in which the affairs of the company had been conducted, that the would leave it to them to formulate some scheme for raising fresh capital.

The CHAIRMAN, having thanked the last speaker for his remarks, said the ore was being shipped as fast as possible, but it was difficult to get ships to carry it, as during the summer months the ships went to the Baltic, owing to being able to obtain better rates. He hoped they would be able to raise the preference shares without going to the public.

The motion for the adoption of the report was then put and carried unanimously.

Mr. ROSS, in referring to the dividend it was proposed to pay and the prospects of the company, cited the progress made by companies carrying on the same kind of business, mentioning specially the Consett, the Orconers, and the Matabella. Iron ore, he said, was an essential to railway construction, and before long great quantities of it would be required for the Indian, American, and colonial markets. The number of similar companies was very small, and there was no reason why in the future the dividends should not more nearly approximate 50 than 5 per cent. It was also within the bounds of possibility, he thought, that the next few years would see a great trunk line from the Cape to Cairo, in any nothing of innumerable feeders. The speaker concluded by moving, "That of the undivided balance of £1324 0s. 5d. the sum of £7 0 be set aside as a reserve fund for depreciation, and "That a dividend be paid for the year 1894 at the rate of 2½ per cent. per annum upon the paid-up preference capital of the company."

Captain HUNTER seconded the resolution.

On the motion of the CHAIRMAN, seconded by Mr. D. F. CARMICHAEL, the appointment of Mr. Ross as a director was confirmed.

The auditors (Messrs. W. H. Pannell and Co.) were re-appointed, and votes of thanks were passed to the Chairman, engineer, and staff.

LA YESCA GOLD AND SILVER MINES, LIMITED.

A vastly improved position.—Good news from the properties.

The ordinary general meeting of the shareholders in the La Yesca Gold and Silver Mines (Limited) was held yesterday at Winchester House, the chair being occupied by Mr. GEORGE WILLS.

The SECRETARY (Mr. S. Banning) read the notice convening the meeting.

The CHAIRMAN said: Ladies and Gentlemen,—In moving the adoption of the report and balance-sheet submitted for your approval, I may state that this meeting has been deferred in order that the report of Mr. Winwood Smith, the new manager appointed on the resignation of Captain Thomas Michell in November last, on the present position and progress of development at the mines, might be received by the board. Captain Michell, whose resignation was prompted by private and domestic reasons, has returned home. He has signified his wish to be present at this meeting, and will be pleased to answer any questions shareholders may desire to ask regarding the mines, &c., at La Yesca. (Applause.) In the report of the directors accompanying the balance-sheet, it is stated, that with reference to the opposition on the part of those responsible for the administration of the affairs of the old company, and consequent legal proceedings, the directors are pleased to be able to state that all difficulties are now at an end. Also that the items in the balance-sheet, debts and liabilities of the old company, and costs and expenses of winding up have since been discharged, and the bulk of the items for outstanding calls and calls in the old company have now been received. These important satisfactory results have only been obtained after the constant and anxious consideration of the board which has been fully given with the hearty co-operation of the liquidator, Mr. Banning. With the approval of the directors, the liquidator of the former company (at whose disposal the shares were placed under the scheme of reconstruction) in November last arranged a contract for placing a considerable number of the unissued shares at par free of commission with an option of the balance, which has furnished ample funds for the work at the mines, and has also placed the company in a satisfactory financial position.

In January last the directors, having long considered it desirable to further safeguard the interests of the company by the appointment of an expert, as consulting engineer to the company, decided on offering the position to Mr. Arthur L. Pearce, who is a well-known and very highly qualified member of the profession, which offer Mr. Pearce accepted, and placed his services at once at the disposal of the board. At the statutory general meeting of the company held in September, 1893, it was voted that no time would be lost by the board in arriving at a satisfactory arrangement with Senator J. C. Padilla, the vendor, in Mexico, the result of whose endeavours to obtain satisfaction for his claims against the old company in the Mexican Courts had proved most detrimental to the progress and interests of the company, and had all but imposed any important development work at the mines for a considerable period. Captain Michell, who was appointed manager shortly after the meeting was held, was instructed to proceed to Guadalajara and arrange terms of settlement, leaving due regard to the interests of the company involved, and after much delay, and considerable amount of communication with the board, Captain Michell succeeded in effecting a satisfactory arrangement with Senator J. C. Padilla, and in entering into an agreement with him under which new debentures will not be issued by this Company, which effected a considerable saving both in this country and in Mexico. Captain Michell with only a short period left before the setting in of the rainy season, proceeded to La Yesca, and, on his arrival, reported very favourably of the appearance and prospects of the mines. He then proceeded to do the necessary preliminary work in reclaiming the San Miguel tunnel, and repairing tramway from the mouth of the mine to the mill site (about 800 feet) bridges, roads, &c., which proved of a much heavier character than had been anticipated. Captain Michell also completed a system of ventilation for the San Miguel tunnel by means of blast furnaces shaft and piping, which has proved most effectual in supplying good air during the drivage operations. The work of completing the mill buildings, and erection of the machinery was commenced and carried on under great difficulties during the rainy season. The machinery, which had been left somewhat exposed to the weather for a long period, required the utmost care; but all difficulties were eventually overcome under the personal supervision of Mr. Bryan, the patentee of the mill, who came expressly from Riodona, San Francisco, at moderate cost to the company, to superintend the erection of the mill. The building of the mill house, and the erection of machinery, are now completed, and it is a source of the greatest satisfaction to hear that the mill ran so smoothly in its short preliminary trials. Mr. Bryan, after leaving the mines on the completion of his work on the machinery, proceeded to the City of Mexico, at Captain Michell's request, and secured for the company the services of the present mill manager, Mr. Miller, the most competent man (with whose ability both Captain Michell and Mr. Winwood Smith have expressed themselves perfectly satisfied) who went to La Yesca, and completed the erection and fitting of the various parts of the mill, and placed it in its present position of complete working order. On Mr. Winwood Smith's arrival at the mines the board, at his request, at once remitted him the necessary funds to purchase stores for the mill, &c., so that crushing might commence with the least possible delay. The cost of working Bryan Mill, per ton of 2240 lbs., is estimated to be about 50/- or less. The wages average per day about—miners, 37 to 62 cents; timber men, 62 cents to \$1.25; labourers, 37 cents to 50 cents. Labour is generally plentiful, with the exception of a short period during the harvest season, when the natives are housing their corn. There is plenty of timber for mining purposes and fuel on the property, and a plentiful supply of water, which is brought to the tanks from a point at a short distance above the mill. Stores can be obtained to any extent at Guadalajara. The cost of freight is about 37 per cent. (mole load) of 370 lbs. Mr. Winwood Smith reported on February 20.—"San Miguel tunnel driven during last week 5 feet 2 inches. Rock very hard. A large quantity of water issuing from the face of the drift.—El Despacho and La Garita. I am stopping in both places. The assays from average samples taken from each were as follows.—El Despacho: 291 ounces; La Garita, 342 ounces. The results greatly exceed my expectations, and I am certain that the mines will prove most profitable." The ore at these points is free milling. On the 26th February he states—"I am this week putting on sufficient men to extract 15 to 15 tons good ore per day. The road to the mill is already repaired, and required it badly." I can only repeat that I have the greatest faith in the mines, and feel sure that within one month I shall cable you returns." On the 7th March he cabled: "Machinery complete in every way. Now producing large quantities of ore that can be treated during 24 hours by the mill is about 15 tons, but, there being sufficient engine power to drive a second mill, the output could be increased proportionately on the addition being made at any future time. You have been informed by circulars which have been issued to you from time to time, as reports have come to hand from the manager at the mines, that the drivage in the San Miguel tunnel has been persevered with to intersect the gold-bearing vein, which in the surface workings, is reported to be of rich ore." In this connection it may be stated that the estimated amount of ore that can be treated during 24 hours by the mill is about 15 tons, but, there being sufficient engine power to drive a second mill, the output could be increased proportionately on the addition being made at any future time. You have been informed by circulars which have been issued to you from time to time, as reports have come to hand from the manager at the mines, that the drivage in the San Miguel tunnel has been persevered with to intersect the gold-bearing vein, which in the surface workings, is reported to be of rich ore." 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actually written £700,475—that is to say, the annual policies written by the association during the year amounted to over £700,000. I attribute, and we all attribute to our prosperity—I believe it is a fact that we have made more progress in these three years than any other life association which has ever been started has made. In the same time—I attribute that progress to our system. Our system is simple; it is capable of being understood, and it has been our practice throughout to lay everything bare to the policy-holders, so that they may have every possible means of judging of what we are doing, and whether we are carrying out those principles which we have professed. In the first place, our premiums are low, because we have from the commencement thought that the ordinary premiums charged were unnecessarily large. It has always been our greatest point to demonstrate to all the policy-holders that there was absolute security for the funds which we have collected for the purpose of life assurance premiums, as when they become payable they are transferred to the trustees, and are invested in their name, and are held for the benefit of the policy-holders under a trust deed which precludes the association from participating in these trust funds under any circumstances whatever. They are the absolute undivided property of the policy-holders. Our investments comprise Bank of Ireland stock, Liverpool Corporation stock, India 3 per cent. stock, Manchester Corporation stock, Leeds Corporation stock, Cardiff Corporation stock, Nottingham Corporation stock, Birmingham Corporation stock, &c., and I submit to you that a finer selection of investments, according to our judgment, could not have been chosen. Gentlemen, I will conclude my remarks by formally moving that the report and balance-sheet be adopted. (Cheers.)

The Marquis of AYLESBURY seconded the motion, which was carried unanimously.

Mr. W. H. HATWARD, the general manager and secretary, in acknowledging a vote of thanks to himself and staff, said—I should like to give you a few figures in support of what the Chairman has said with regard to the expenses of management, and the present position of the association. Comparisons, they say, are odious; at the same time it is only by comparison that we can test the true position or the benefit of the works. We charge our policyholders about 45 per cent. less than is usually charged by other companies. If we charged the same our income would naturally be greater, and our funds would naturally accumulate faster; but we believe in the principles of the association with, namely, to remove the excesses of premium in the interest of the policy-holders, and that they should retain in their possession their surplus funds built up under the old system. As to the expenses in relation to those figures, had we received the same amount of premium for our business as would have been paid for the assurances on the old lines, our expenses would, of course, not have been greater, but would be very much less. I have looked into the figures of a few companies, I would mention one which was notorious, perhaps, for its expense. It has spent a very large sum of money, but it secured for that expenditure the greatest business success of any company since the passing of the Life Insurance Act. Their expenses were 157 per cent. of the premiums received from their policy-holders, while our expenses only amount to 47 per cent. of what we have received from policy-holders—that is, including those expenses provided for by the guarantees. If that expense had been charged, it would only amount to a little over 40 per cent. of what they have paid. Of course, as a matter of fact, expenses chargeable to policy-holders are strictly limited. Another insurance company, which pays no commission to agents, expends nearly 60 per cent. of its policyholders' money in expenses. So you see that we are much lower than that. I am avoiding giving names, but I am giving you these figures to show that the expenses have been strictly economical in producing the results we have produced. If you take the expenses relative to sums assured, you will find our expenses have been 1½ to 1¾ of what it has cost to put that business upon their books. I should like to draw comparisons with another company, which scored a very great success in its early years—at least, under my administration. I find that our figures in comparison with that company are equally interesting. During their three years in this country, which was during a period of greater commercial prosperity than the three years through which this company has laboured, they received a little over £22,700 for premiums during the same period that this association has received £29,500. I think that is very encouraging. They paid in death claims £7850. We have paid out £8397, which is very nearly the same proportion; but it leaves this association with over £21,161 surplus in the life fund, while the other company has £138,202. In other words, we leave off with more money as a surplus in the life fund, or nearly as much as they have received in total premiums during the same period. I think this speaks volumes for the success achieved by this association during years of anything but prosperous times. If we go back into ancient history to find out what some of the companies did in those days when there was less competition and less business to be done, and, therefore, the position as to securing business would be very nearly equal, we find that the present biggest life office in existence took 15 years before they had built up a revenue income of £27,000, while our income last year was over £28,000 at half the rates. It took 10 years to raise £50,000 of their funds, charging double the premiums that we are charging in this association to policy-holders. So if we go into ancient history our success is still astounding. As far as the shareholders are concerned, I should like to touch upon one point. I will take the mammoth life office—the Prudential. It is certainly in my opinion a mammoth example of prosperity of modern times, and what I am going to say reflects nothing to their discredit, but rather otherwise, that is to say when clouds were so thick and heavy at one time, how splendidly they have come out of them, and that they stand in their present proud position. In 1853, five years after the Prudential was established, the company had a premium income of £3018. They commenced the industrial business during that period, and it took them until 1861 before they got a premium income of £19,000. We have a premium income of £28,000 in three years. Now, the Prudential paid no dividend to their shareholders. In 1858, 10 years after the Prudential was started, they had a premium income of £10,900. They experienced very great trouble at that time, as much so that the shareholders had to stand the squeeze, and they had to pay their call, and that realised the obligations of the company. In fact, they spent capital to the amount of £24,000, double the money than we have spent in building up our company. Then the directors in 1858 had to come to the rescue, put their hands in their pockets, and had to find as much at one time as £35,000 towards carrying on that institution. At the present time their income is £5,826,000 a year, and the position of the company is unquestionable. Their shareholders have received the very handsome dividend of £1,315,770. They have allotted, but not distributed, a sum of £80,000, and they have an interest up to the time of this report in an unallotted £460,000. That brings it up to over two millions of money which the shareholders have had. I do not think I can say anything more to forcibly demonstrate the economical working of this association, during the three years that it has been in existence, and in comparison with ancient history, or companies of a more modern date, it stands out very favourably. Our expenses have been economical, and we have produced results gratifying to everyone connected with it. I am happy to say the business is keeping up at the same good rate, and I hope the next time we meet we shall have to report something of a startling but pleasing character.

A vote of thanks to the Chairman closed the meeting.

LIBIOLA COPPER MINING COMPANY, LIMITED.

A dividend of 7s. per share declared.—The condition of the copper market.

The seventh ordinary general meeting of the Libiola Copper Mining Company (Limited) was held yesterday at the offices, Dashwood House, 9, New Broad-street, E.C.—Mr. K. H. JAMES presiding. The SECRETARY (Mr. Ralph S. Archbold) having read the notice convening the meeting,

The CHAIRMAN said: There is one thing in the report to which I wish to call your attention, and that is a printer's error. The balance carried forward is represented as £441 17s. 7d.; it should be £401 17s. 7d. I think you will agree with me that the dividend we are enabled to declare for the present year is exceedingly satisfactory, considering the great dullness of trade and the very low prices which have ruled for copper during the past 12 months. As the report points out to you, the average price for 1894 was £40 4s. 10d. per ton, against £43 12s. 6d. per ton for 1893. Notwithstanding this, the difference in our net profit is only £692, and we are able to declare a dividend of 7s. per share, carrying over a balance of £401, against £105 for the previous 12 months. This result is owing in a great measure to the fact that we have made larger sales of low class ore in Italy, and the consequence has been that as we obtain a better proportionate price for it than we should do on this side, we get a larger amount of profit on it than if we had brought it over to this country.

Owing to the recent low price of copper we should not be able to import it here at a profit at all, but over there we sell it not only at prime cost, but with a certain amount of profit, which certainly adds to the amount available for the dividend. The total production for the year 1894 was 17,708 tons, against 18,450 tons in 1893—a variation of 700 tons in favour of 1893. As everyone knows, in working a mine it is utterly impossible, except under very exceptional circumstances, to raise exactly the same quantity in one year as you do in another. A trifling impediment or accident will throw out your calculations to a certain extent, and, therefore, the output of the mine can never be looked upon as an investment in Consols, which do not vary except for the income-tax. I see that by the previous years we did not turn out so large a quantity, and that reduction was in the low-class ores of which I am speaking. In 1892 our output was 14,031 tons, and in 1891 13,980 tons. In 1891, owing to the high price of copper, we were enabled to give you the same dividend as we do to-day—namely, 7s. per share. The average of copper for that year was £51 6s. 5d.—that is to say, in round numbers, £11 higher than it was for the past 12 months. In 1892 we gave you a dividend of 6s. 6d. per share, and copper then had fallen to an average of £45 8s. 11d. In 1893 copper stood at an average of £48 12s. 6d., and in that year we increased the production over the

preceding year by about 440 tons, which accounted for the extra dividend which you received. As far as we hear from the mine, and as far as we have reason to know and believe, it is capable of turning out equally large quantities for the present year. Unfortunately, the price of copper is not quite so good as it has been, although the reduction is not of a very serious character. I find that the average for January, February, and March of this year was £39 14s. 1d., being practically 10s. below the average of last year. But, as I said before, our mine is not producing very rich ore, although it is producing very great quantities. The bulk of our production is not so valuable for copper as it is for sulphur; and although we do not get paid an actual sulphur price, still the rate per ton paid to us for that ore compensates us for the low quality, and also gives us a certain amount of payment for the sulphur, though not directly given on that account. The contracts we have entered into for the present year cover the whole of the production. We do not pretend to know when copper has reached the top, neither do we feel ourselves competent to say when it has reached the bottom. We have, therefore, followed the plan which we have adopted in former years, and, I think, with very satisfactory results—namely, that the ore which is imported into this country, and of which the copper is the chief constituent, is sold at the average of the year, and by so doing we flatter ourselves that we obtain better results than we should do if we trusted to our good luck and good management in getting at the very highest figures. Whether we shall succeed in so doing is more than I can say. In Italy also we have entered into large contracts—larger, in fact, than we have done hitherto—for the production of this low class stuff which we deliver to Italian consumers. That is very likely to increase, although I will not say that it will actually do so, because now we are depending upon the mine, upon facilities for obtaining labour, and also somewhat upon the weather. We believe that we shall turn out in 1895 a larger quantity of ore than hitherto, and if copper holds its own, or shows a slight improvement we hope and trust it will give you a slightly better dividend this year than it has for the last. How much, if any, is more than I feel myself absolutely competent to predict; at this time next year I shall be able to tell you for certain. In our report we make reference to certain explorations in the Ida gallery. Those explorations have been carried to a very great length in the interior of the mine, and were at a certain time—I will not say stopped—but were not prosecuted in length, because our mining captain thought that it would be expedient and prudent for us to make explorations at the end of the passage or gallery in order to see whether we had ore above us which would be likely to prove productive in mining. He did this because at the point where we ceased extending the gallery there was a large body of ore under foot, and he thought that that indicated that there would be a mass above. He has made certain explorations in that direction, and has also communicated with the upper levels so as to improve the ventilation in the mine. A large portion of those operations were directed to ventilation and not to exploration, because I think that gallery is practically ½ mile in the interior of the mountain, and you will understand that at the end there is very little ore. He therefore thought it most expedient to devote the principal portion of his time to communicating with the upper levels, and so bringing proper ventilation into that mine. That has been done. He has found a certain quantity of ore, but he has not made many explorations with the view of discoveries, for the reason I have just given you. We have called his attention to the fact that the shareholders are anxious to see what ore, if any, exists at the point where the gallery struck and we have recommended him to sink on the ore body, which is under his foot, and also to drive the gallery a certain extra length, so that he might come directly under the ore bodies which exist in the mine above. Those operations he will prosecute so far as he is able during the present year, but we are to a certain extent restricted in what we are doing because we are very large employers of labour in a sparsely populated district, and we cannot obtain more than a certain amount of labour, unless we raise the wages and so increase the expenses. We do not think it expedient to do that; all that we do is to take as much labour as is available without increasing the cost. Therefore, to a certain extent our exploratory operations are impeded by the fact that we do not want to bring outside labour into play. It would be very difficult in a country like Italy to bring in outside labour, and if we did so it would certainly increase the cost, and very likely cause dissension. Last year we sent out to see if we could not bring down the ore by a tram to the coast instead of by the roads. We found that we could, but that there were obstacles in the way. Again the labour difficulty cropped up, and it was a question whether the inhabitants would not be dissatisfied at trams being employed, and whether the municipalities would not prevent us, or render it exceedingly difficult. Besides there is a railway between us and the port, across which we could not obtain permission to pass. The cartage there is done at an exceedingly low figure. From the mine to the seaport it only costs about 4 lire a ton, and therefore there is very little saving to be made. The fact is, that, although we should make a saving, it would mean that we should raise a certain amount of hostility, and we thought it advisable not to prosecute that idea any further. We have, however, done something to lighten the cost; we have put up a wire tramway, and we are proposing to increase the capacity of that tramway by making it of a stronger character. The first one put up was experimental, and we are taking steps to strengthen that, and to make it better adapted for the purpose, and we trust that will also tend to economise the charges on the other side. We have just sent out a mining captain who is acquainted with the neighbourhood, with a request that he should inspect the mine on the principle that two heads, perhaps, may be better than one. We have asked him if he can suggest anything to improve the working, to facilitate the extraction, or to prosecute explorations in other directions than those hitherto followed. We are now awaiting his report, and if there is anything of importance in it, it will be communicated to the shareholders. I have now to propose:—"That the directors' report and statement of accounts be received and adopted."

Mr. JOHN REEVES seconded the resolution.

Mr. GIBSON expressed his satisfaction with the dividend. He thought that, under the disadvantageous circumstances of the past year, the board had done wonders for the shareholders.

The resolution was carried unanimously.

The CHAIRMAN next moved, "That a dividend of 7s. per share for the year ending December 31 last be declared, and that an interim dividend of 2s. 6d. per share paid on September 14, 1894, be considered as part thereof, and that the balance of 4s. 6d. per share be paid on and after April 5."

Mr. C. HEMERY seconded the motion, which was adopted.

On the motion of Mr. REEVES, seconded by Mr. T. E. WEIR, Mr. C. Hemery, the retiring director, was re-elected.

The auditors, Messrs. Cooper, Brothers, and Co., were also re-elected, and a vote of thanks having been accorded to the Chairman and directors for their able conduct of the affairs of the company, the proceedings terminated.

At the annual meeting of the DELTA METAL COMPANY (LIMITED), held on Thursday, the directors declared a dividend for 1894 of 5 per cent.

The BROKEN HILL PROPRIETARY COMPANY (LIMITED) has declared the usual dividend of 1s. per share, payable on April 17.

The TRANSVAAL GOLD EXPLORATION AND LAND COMPANY (LIMITED) has declared an interim dividend of 1s. per share.

The directors of the THAERIS SULPHUR AND COPPER COMPANY (LIMITED) have recommended a dividend of 10 per cent., equal to 4s. per share, payable, free of income tax, from the profits of the year 1894, after writing off £56,026. The sum of £14,948 is carried forward to 1895.

The secretary of the ISLE OF MAN MINING COMPANY has sold 100 tons of this company's ore at £8 15s. 6d. per ton.

MINING IN CORNWALL

AND DEVON:

NOTES ON MINING IN THE WEST.

(BY OUR SPECIAL CORRESPONDENT).

THE Dolcoath scheme and its probabilities continue to occupy the thoughts of the mining community, though no fresh light has been thrown on the situation by any events subsequent to the meeting. There is, nevertheless, a strong belief, amounting almost to a certainty, that on Tuesday the executive will be in a position to report progress. Both the Tehidy agents and the Dolcoath executives have had some experience of driving bargains, and it may be taken for granted that both sides have been endeavouring to make the best bargain in the interest of those whom they respectively represent. It is understood that the differences were as between 1-20th dues and 1-30th, and we have no hesitation in saying that either proposal is somewhat unreasonable. In the first place, Dolcoath Executive Committee could not seriously have expected to get 1-30th and 1-20th, seeing that the depth of Dolcoath, and the fact that the lord would participate in the improved facilities at the mine without incurring one penny of the cost, was too much to expect people outside the county to look at. The solution will probably be found in the happy medium, and it will be a surprise if 1-24th or 1-26th is not agreed on as the basis of the dues in the new lease. As to the opposition which is said to be likely from Mr. Henry Rogers to the conversion into Limited Liability at all, that is not much to be feared. The general body of the shareholders are in favour of the scheme, and if the dues are agreed on the thing will be carried through.

THERE was some uncertainty as to whether the retirement of Captain Teague from Wheal Kitty, and the circumstances attending it, would not form the subject of discussion at Wheal Kitty meeting on Friday; but if such a thing had been intended, wiser counsels prevailed, and the meeting was tame in the extreme. Captain Teague resigned his connection with the mine, and relinquished his shares, and there was an end of it. There have been a fairly large number of shares relinquished, but, fortunately, there were over 8000 shares, and there remain a larger number than most calling mines can boast of—over 6000. The serious items are the unpaid calls, and calls due on forfeited shares, but these are in course of collection, and of the £900 due it is anticipated that at least one-half will be obtained, and probably more. The prospects at the mine seem to be fairly good, and they are working now to get on the same bunch of tin which has proved so productive in the neighbouring mine of West Kitty. It has been rumoured, by the way, that Captain Teague is about to resign his appointment as manager of Tincroft to take up an appointment abroad. We know that he has been offered a good appointment, but we question whether the inducement is sufficient to induce him to give up Tincroft, in the development of which he is so greatly interested.

THERE seems to be a probability of the extinction of that somewhat grandmotherly institution—the Stannaries Court, and if the Bill, which has been introduced by the Lord Chancellor in the House of Lords, be carried, the present year will see the end of it. It is a very old institution, having been formed soon after the Norman Conquest, but the reason for its existence, now with the extension of powers of County Court Judges and the limited extent of the mining operations, does not seem very obvious. Very rarely indeed is it taken advantage of, though if we are going to have many more such lengthy actions as the Grenville-Condurrow encroachment, the County Court Judge will doubtless object to the transference of its duties to him. There may be something in the suggestion of Mr. Bain that it might remain as a court of arbitration in mining disputes; but we would rather, if such a court is to be established at all, that it should be an altogether independent tribunal, formed of practical mining men, rather than of gentlemen of the legal profession.

WHEAL AGAR has been unfortunate again. This time there has been a breakage, which has hindered them considerably, and at a critical time, when they are doing their best to pull through the untoward circumstances of a poor price and a—temporarily at all events—poor mine.

THERE is again some talk of the re-starting of Camborne Vein as a Limited company. No doubt the conversion of Dolcoath—the adjoining sett—would be a great help to any company endeavouring to find capital just now, but the capital necessary to put Camborne Vein to the required depth, and to lay out the necessary plant would be considerable. There are, however, a number of good miners unemployed in the neighbourhood of Camborne and Redruth, to whom the opening up of a new concern would be a godsend.

BOTALLACK has come pretty close to its end now, and most of the men have been discharged. There were no tenders for it as a going concern, and it is proposed to sell the machinery for what it will bring.

NEW ISSUE.

HAMPTON GOLD FIELDS (LIMITED), WESTERN AUSTRALIA.

The capital of this company is £100,000, in 100,000 shares of £1 each. It has been formed, says the prospectus: "1. To purchase the benefit of a contract by which this company will acquire for the period, and on the terms therein mentioned, the right to purchase a block of not less than 7000 acres of the valuable freehold property, situate in the Hampton Plains District, Western Australia, owned by the Hampton Plains Estate (Limited), the important developments on which are now attracting universal attention. 2. To purchase the benefit of a contract by which this company will acquire for the period and on the terms therein mentioned, the right to prospect over and select gold mining claims on about 114,000 acres of the above freehold lands owned by the Hampton Plains Estate (Limited). 3. To acquire the leases of and work a gold mining property situated about 1½ miles south-east of the town of Coolgardie, known as the 'Orient' Mine, comprising an area of about 15 acres. 4. To acquire the gold mining leases of about 30 acres adjoining the above-mentioned 'Orient' Mine, and to develop the same, and, if thought advisable, to work or to dispose of them or portions thereof to other companies."

The "Orient" Mine and adjoining leases have been visited several times lately by Mr. R. Herbert Lapage, who recommends the property. He says that there are several reefs on it which require developing. Mr. W. H. Matthews, the general manager of Bayley's Reward Claim, also recommends it "as a fair, sound mining speculation that when developed will in the near future be considerably increased in value, so far as can be judged at present."

The working capital of this company will be a substantial one, as 45,000 shares will be appropriated for that purpose.

HARMONY GOLD AND LAND COMPANY.—Mr. Lavington Evans, who has for several years had the management of the Harmony Gold and Land Company's estates in the Transvaal, has resigned his seat upon the board, and leaves for the Cape by the s.s. *Norman* on the 30th inst., en route for Pietersburg, where he will in future reside as general manager of the company's property.

EASTLICH MINES.—The offices have been removed from 14, Sherborne-lane, E.C., to Winchester House, E.C.

Letters of allotment in the HAMPTON PLAINS EXPLORATION COMPANY (LIMITED) have been posted.

MENZIES GOLD REEFS PROPRIETARY. LIMITED, WESTERN AUSTRALIA.

THE prospectus of this company will be issued next week. We have received, however, an advanced copy of it, and extract therefrom the following particulars:—"It is formed to acquire and work seven gold mining claims, known as 'Hall's' or 'Wilson's' leases, having a total area of about 122 acres, situated at 'Menzies' Find,' portions of which claims will be worked, and other portions developed for sale to subsidiary companies, or retained as may hereafter be deemed most advantageous. The following are the numbers and names of the said leases:—1409, 'Robinson Crusoe'; 1411, 'Friday'; 1447, 'Selkirk'; 3009, 'Robinson Crusoe East'; 1446, 'Defoe'; 1410, 'Lady Shenton, No. 1, 3016, 'Nada'; total area, 122 acres. The claims are held under the usual mining leases granted by the Government of Western Australia."

The properties have been examined and reported upon by Mr. W. H. Matthews, M.E.; Messrs. Bewick, Moreing, and Co.; and by Mr. Florence O'Driscoll, M.P., A.M.I.C.E. Messrs. Bewick, Moreing, and Co.'s report concludes as follows:—"The general conclusions we have arrived at are (1) That the reefs are well-defined, although much disturbed by cross-veins; (2) that the ore is very rich; (3) that the property is very extensive; (4) that the developments at the time of our inspection were meagre; and (5) that we can recommend the property as being a very valuable prospect."

The following are extracts from the report of Mr. Florence O'Driscoll:—"Selkirk: Course and trend of ore bodies northerly. The width of the lode is 2½ feet, pannings from 1 ounce 10 dwts. to 2 ounces 5 dwts. per ton. Parallel lode, 10 feet stone at a depth of 10 feet from surface, panning 2 ounces. Crusoe East, 20 acres, the lode runs northerly, the width of the lode is 5 feet, pannings 1 ounce 10 dwts. per ton. A cross lode 1 foot 8 inches visible free gold. Robinson Crusoe, 24 acres, network of veins, two lodes, northerly, two cross lodes, deep shaft 100 feet, the width of the lode is 2 feet. List of assays:—4 ounces 8 dwts. 15 grains per ton; 23 ounces 17 dwts. 12 grains per ton; 30 ounces 13 dwts. 15 grains per ton; 21 ounces 2 dwts. 7 grains per ton. 'Nada,' 18 acres, two lodes, 1 foot 8 inches; ore contains visible gold. 'Defoe,' 12 acres, four lodes. 'Friday,' 12 acres, three lodes. Too rich, continue upraise. 'Lady Shenton,' No. 1 south, the property is traversed by five lodes. List of assays:—30 ounces 2 dwts. 3 grains per ton, 27 ounces 2 dwts. 10 grains per ton. Entire ground splendid mining investment. In a letter dated January 21, 1895, Mr. O'Driscoll states: 'At Menzies I found more gold in half a day than I have ever seen since I came to Western Australia. At Menzies, the difficulty is to find a piece of stone which does not show at least a colour of visible gold. The majority of stones in the dump show nice heavy gold.'

Mr. W. H. Matthews concludes his report as follows:—"Almost all the lodes opened contain gold, more or less, some being very rich. This, together with the large number of bulk samples taken from various parts of the property, extending such a considerable length and width, stamps it as a good, sound, legitimate mining investment, and I consider that with the necessary machinery there is great promise of this being, in the near future, one of the largest gold-producing mines we have, and a good investment for capital expended."

The Chairman of the Gold Estates of Australia (Limited), at a meeting of the company held this week, alluded to Hall's leases in the following terms:—"Now, a word as to Hall's leases, which bid fair to prove one of the finest properties in Western Australia. Its extent is very large, 122 acres on the line of the reef, an area sufficient for four or five large mining companies—i.e., provided it is all gold-bearing. Well, that is just what the reports say it is."

CORRESPONDENCE.

We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.

THE COLON GOLD MINES, LIMITED.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—It will be remembered that two and a-half years ago an attempt was made by those interested in hydraulic mines in Colombia, to obtain from Congress a change in Article 5 of Law 38, favourable to those mines whose operations rendered rivers, streams, and water supplies generally unfit for domestic and other uses by the dirtying of such supplies. That attempt, notwithstanding the presence in Bogotá of English delegates and other personages whose influence was counted upon, representing the Colon and other London companies, proved to be little better than an expensive diplomatic fiasco, the only modification obtained being that when an alluvial or other mine was suspended, from the above cause, the necessary quantity of clean water to be supplied in place of that dirtied by it should be determined before such supply was laid on (instead of after, or at the time of doing so as heretofore) by three arbitrators, one of whom is named by the owner of the mine causing the damage, a second by the owner of the injured property, and the third by the Alcalde of the district, representing the authorities. In previous communications to the Journal, I explained how proceedings initiated against myself by the Colon Company's representatives (I, only, out of 17 other estate-owners being thus honoured), lasting seven months up to that period, and then annulled by the Governor upon my appeal, had most signally failed in obtaining a favourable result by the appointment, through the medium of a friendly and interested Alcalde, of a sympathetic owner and negotiator of alluvial mines for the important post of third arbitrator to act for the authorities. It is now over 15 months since those proceedings were commenced by Mr. Russell, the company's superintendent, and still this disputed nomination continues as great a stumbling-block in the way of the Colon Mine as ever. Clean water yet remains to be furnished to the towns of Guayabal and Mendez, and to the 18 estates menaced by the mine, and it may be tolerably safely predicted that the Colon Mine is doomed to continue suspended until such supplies, not even attempted to be laid on, are forthcoming.

During the 1894 Congress, recently terminated, a further effort was made to secure an advantageous change in the same law, No. 38, with the result that Congress adversely modified Article V. to the following extent—viz.: As regards the determination of the quantity and quality of the clean water to be furnished by the mines causing injury to existing supplies, instead of arbitrator No. 3 being appointed by a local Alcalde, he shall be named by the Governor of the Department in which the proceedings arise. In all other respects the law

remains precisely as it was. The effect of this salubrious change in favour of industries other than alluvial mining will be to reduce the chances of intrigue and favouritism through possible "get-at-able" Alcaldes, and to ensure the nomination of competent and perfectly impartial and disinterested arbitrators representing the authorities, as the law always intended and presupposed, and which estate owners have been righteously and consistently contending for since the Colon proceedings were first instituted. It now only remains for this company to re-commence squarely at the very beginning; and, after competent and impartial arbitrators shall have been appointed for estimating the clean water necessary for the two towns and the 18 estates referred to, and covering a distance of some 20 miles, more or less, to proceed to discover the whereabouts of, and when found, to lay on such water.

The chief result of the wavering policy hitherto followed by the Colon Company has been to widen the area of the conflict between hydraulic mining concerns on the one hand and the vested interests, injured and depreciated by the latter, on the other, and to strengthen and solidify the growing opposition to a system of mining (so called) which is not only antagonistic to agricultural interests and other pursuits, but to vein mining also, by endangering and rendering unserviceable the water supplies necessary for concentrating, and metallurgical or mechanical operations generally; for it would be impossible to work a vein mine situated on the same stream and below the point of discharge into it of the enormous amount of gravel and dirt removed from an alluvial mine.

This point—viz., hydraulic mining *versus* vein mining—is one that has not been hitherto sufficiently emphasised or taken into account. Those, however, who are interested in the latter pursuit will not fail to see its significance and importance to the industry. An example will suffice. Supposing the law checking the abuses of hydraulic operations were relaxed, as the advocates of this system have been contending for, and an alluvial mine were started at a higher point (say) than the Tolima Company's Silver Vein Mine at Frias, and discharged its 2000 to 4000 tons a day of clayey rubbish into the approaches and water-ways and supplies of the Tolima Mine, for how many months or days would the Frias Vein Mine continue to enable its directors to declare dividends? Nevertheless, this is precisely the sort of result that might, and probably would, be brought about had the joint Colon and Tolima superintendent, and those instructing and co-operating with him, had their way and succeeded in obtaining from Congress the extent of freedom, or "protection" as they term it, in the working of hydraulic mines they have been hoping and striving for.—I am, sir, &c.,

EDWARD GLEDBYLL.

Carolina Hacienda, Honda, Republic of Colombia, January 21.

A FORTUNE IN A TEST TUBE.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—My attention has been drawn to a letter in your last issue under the above heading, signed by the pseudonym "Scrutator." "Scrutator" probably has his own reasons for not divulging his identity to the curious public; among other reasons that his peculiar law and still more peculiar chemistry would not add to his reputation, which he leads us to believe is considerable. "Scrutator's" reference to the time at which the announcement was made in the *Pall Mall Gazette* appears to insinuate that something approaching contempt of Court was perpetrated. If "Scrutator" does not mean this, I am afraid I cannot grasp his meaning. If "Scrutator" had been a little more behind the scenes, or had even taken an intelligent interest in metallurgical matters, he would have known that Mr. Sulman read a paper at the Institute of Mining and Metallurgy, which was followed by a lengthy discussion, and all who were interested in the metallurgy of gold had an opportunity of criticising, and, if they wished, of condemning the Sulman processes. A certain amount of criticism was passed on the processes, which was replied to by Mr. Sulman and others, and, in my opinion, the processes emerged from this ordeal stronger than before subjected to it. I must refer "Scrutator" to the full report of this paper and the discussion published by the Institute of Mining and Metallurgy. This paper dealt with a number of processes, but as "Scrutator's" letter only deals with the new solvent, in which I am jointly responsible with Mr. Sulman, I confine my remarks to that.

Mr. Vautin, the well-known gold expert, has become interested in the solvent discovered by Mr. Sulman and myself, because he thinks highly of it. Mr. Vautin also gives evidence in the Cassel case as a gold expert. I fail to see anything in these two facts damaging either to our process or to Mr. Vautin. That Mr. Vautin has secured the interest in the Sulman processes is distinctly a testimonial to their merit.

I do not care to criticise "Scrutator's" chemistry in detail, beyond giving a general denial to his statements, but I must quote his concluding sentence:—"It would be better and more economical, though still highly prohibitive, to use bromine at once; and to state this fact is to condemn the Sulman process."

The colloidal inaccuracies in this sentence show that "Scrutator" is absolutely ignorant of chemistry in general and the Sulman process in particular.

The Sulman process does extract gold from pyritic ore, and has done so repeatedly and successfully on half tons lots, and we are prepared to demonstrate this to any responsible person having a bona fide interest in the matter.—I am, Sir, your obedient servant,

FRANK L. TEEB.

60, Gracechurch Street, E.C., March 28, 1895.

THE GWELO (MATABELELAND) EXPLORATION AND DEVELOPMENT COMPANY, LIMITED.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—I am instructed to send you the following information, in reply to the communication made by the British South Africa Company, and issued to the Press, being relative to a section of the property and claims held by the above company in the Gwele district, in Matabeleland.

First, the company has not stated, in any of its notices, that Mr. Arthur M. Rhodes (brother of the Hon. Cecil Rhodes) or Mr. J. E. Scott had any connection with the flotation of the company; but I am instructed to point out the fact that both the above-named gentlemen, together with others, were the original or actual vendors who sent the 100 claims, situated at Gwele, and mentioned in the British South Africa Company's announcement, over to London for the purpose of being formed into a large company.

Secondly, with regard to the value of the 100 claims specially mentioned, my directors have the written report of Mr. Frank J. Summers, who speaks very highly of the claims. This gentleman was the accredited agent, under power of attorney, at the date of his report, of Messrs. Rhodes, Scott, and others, and at the end of his report he makes the following statement, viz.: "The information given by me in the above I certify to be correct, as supplied to me by the owners, and from my own personal knowledge, after nearly four years' residence in Matabeleland and Mashonaland."

Thirdly, with respect to the development. It cannot be ex-

pected that these properties have, as yet, been thoroughly developed, otherwise they might have been sold separately. One of the objects of the company is to acquire valuable and promising mining claims in that coming country, Matabeleland, and to develop them prior to their formation into individual mining companies. With a view to the above objects, one engineer has already been paid to make a preliminary examination of the Gwele properties, and a cable or other reports may be expected at an early date: in addition to which a party has been fitted out, and is now on its way to Matabeleland and Mashonaland, to exploit and develop the various properties of the company. I am also authorised to state that a second party is also preparing to sail at an early date, under the direct charge of Mr. Charles J. Faavel (consulting mining and metallurgical engineer), an expert who has spent many years in exploring and mining engineering in Africa, and with whom the public are already acquainted.

Finally, this company is only in its infancy, and has not yet had time to get to work, like many of its kindred companies in the British South Africa Company's territories; but, although young, a great future may be anticipated for it, more especially in view of the enormous possibilities now rapidly opening up in South-east Central Africa.—I am, dear Sir, yours faithfully,

J. TUCKER, Secretary.

18, Bishopsgate-street Within, March 29.

GOLD MINING IN WALES.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—Gold Mining in North Wales has again been brought under note of the public by the recent event and the result of the New British Goldfields within the last six months of success and practical work which shows the produce of fifteen thousand pounds worth of precious metal sent to market.

Gold mining generally in all countries are speculations. But with a moderation of the woods and Forests regarding the royalties being 1-35 to 1-50.

There is no reason why that gold mining should not be developed and worked to a profit there are hundreds of acres of alluvial deposit as well as no less than seventy auriferous Quartz reefs traversing the Gold District of Merioneth which is about twenty seven miles in length two and a half to three miles in width.

The results obtained at different times from the neighbourhood—viz., the celebrated Clogau Mines, Prince of Wales, Cefn Coch, Dolfrwng, Owlesian, Gwynfynydd, &c., under a great many difficulties which is now being overcome by the improved process to extract the precious metal from the quartz and other metals it contains it cannot be too clear put down that in the face of the four mentioned difficulties if properly handled an enormous amount of gold will be the result as well as a large profit for the capital invested. I have before me a list of 46 different veins from the various properties of the district showing the result from 5 to 18 dwts. of gold per ton.

We believe the above being sufficient inducement for to justify a capitalist of its development and taking the advantages and the facilities which is now offered by the Commissioners of Woods and Forests in the Welsh mining industry and the question of future workings upon a fair basis will I trust have the attention of those who invest their money in.

The history of auriferous mining in the former years and the improvement already mentioned and its future will be an encouragement to continue the efforts which already has proved satisfactory it is hoped that a practical development of the Welsh hills will result in immense profit.—I am your's &c.,

Mining.

[We publish this letter as it was received.—En. M. J.]

Linares Lead Mining Company.

The half-yearly report of the directors states that the operations for the past six months resulted in a profit of £3088 1s. 10d. "This amount, although satisfactory, having regard to the low price which prevailed for lead, is less than the profit of the previous six months, the reason being that there was an increased expenditure in the development of the mines, and a somewhat diminished output of ore. The rate of exchange, too, was less favourable to the company that it had been for some time previously. The reserves of ore are estimated at 7000 tons, which is the same quantity as was reported six months ago.

The Fortuna Company.

The result of the past half-year's work has been a profit of £1347 15s. 10d., which is only slightly less than the profit of the preceding six months. As a portion of this profit was derived from ore which in the previous report was included in the reserves, the directors propose that the sum of £250 should again be written off from the "Mines, buildings, and machinery account," but a sufficient amount of profit will even then be left to pay the dividend of 1s. per share on the 6th proximo, and at the same time to place £32 10s. to the credit of the reserve fund.

Tharsis Sulphur and Copper Company.

For the year 1894 the directors recommend a distribution of 10 per cent., and that £56,000 be written off depreciation, leaving £10,900 to be carried forward.

—The directors of the WEST PRUSSIAN MINING COMPANY (LIMITED) have declared an interim dividend on the pre-preference, preference, and ordinary shares at the rate of 8 per cent. per annum for the past three months.

UNITED STATES IRON INDUSTRY.—The latest monthly statistics of the United States iron industry show a renewed contraction of the output. On March 1 there were only 173 furnaces in blast, with a weekly output capacity of 156,079 tons, as against 179 furnaces on February 1 with a weekly capacity of 163,391 tons, 182 furnaces on January 1 with a weekly capacity of 168,414 tons, and 184 furnaces on December 1 with a weekly capacity of 168,762 tons. Thus the decline has been going on for three months. Moreover, the aggregate of stocks sold and unsold, has been rising, and is now reported at 770,973 tons, against 718,073 tons on February 1, and 645,458 tons on January 1. It is, however, explained that after the bituminous coal strike last year, when furnaces went out of blast for the lack of fuel a great many delayed orders had to be filled, and work was resumed on a large scale. Thus, while on June 1 only 88 furnaces were reported, with a capacity per week of 62,517 tons, the number increased month by month, until on December 1 there were 184 active furnaces, with a weekly product of 168,762 tons. This was at the rate of over 8 million tons per year, and that, it is urged, was too large an output to be permanently maintained in a period of trade depression. Some ironmakers have stopped work recently to make repairs. Others have found the continued low prices an obstacle. The output, however, is still 40 per cent. greater than a year ago. On March 1, 1894, only 133 furnaces were in blast, turning out 110,166 tons per week (and this was larger than for eight months previously); while for March 1, 1895, there are 173 active furnaces, turning out 136,979 tons.

DEPRESSION IN THE TIN-PLATE TRADE.—Owing to the continued depression in the tin-plate trade, the men at the Worcester and Forest Works, Morriston, have, it is stated, decided to accept 12½ per cent. reduction on the standard wage rate for two months longer.

The SUBSCRIPTION LIST will CLOSE on or before WEDNESDAY, the 3rd April, 1895, at Twelve o'Clock.

This Company has secured the rights:—

- To prospect over certain blocks of Freehold Property in Western Australia belonging to the Hampton Plains Estate, Limited, and to purchase a block to be selected. The blocks contain areas varying from 7000 to 13,000 acres.
- To further prospect over upwards of 114,000 acres of Freehold Lands of the Hampton Plains Estate, Limited, and to take up Mining Claims thereon.
- To purchase the "Orient" Mine, near Coolgardie, W.A., with its valuable water catchment.
- To purchase Gold Mining Leases comprising about 30 acres adjoining the "Orient" Mine.

HAMPTON GOLD FIELDS, LIMITED,

WESTERN AUSTRALIA.

CAPITAL £100,000, in 100,000 Shares of £1 Each.

THE LONDON AND WEST AUSTRALIAN SYNDICATE (LIMITED),

invite applications for 45,000 Shares at par, payable 2s. 6d. on application, 2s. 6d. on Allotment, 5s. two months after Allotment, and the balance in calls not exceeding 5s. each as required, but at intervals of not less than three months. The shares may be paid up in full at any time, and will rank for Dividend upon the amount paid.

45,000 Shares are appropriated for providing WORKING CAPITAL as required, of which 20,000 Shares are reserved for future issue.

Directors.

The Right Hon. the EARL of DONOUGHMORE, K.C.M.G., Chairman.

ERNEST C. HAINES (Messrs. Haines, Batchelor and Co.), Cannon Street, London.

*E. HERBERT LAPAGE, M.I.C.E., Director of the West Australian Gold Fields (Limited), and of

the Hampton Lands and Railway Syndicate (Limited).

Lieutenant Colonel W. OUGHTON-GILES, Ascot.

S. D. STONEHAM, Director of the Mount Margaret "Reward" Claim (Limited).

* Will join the Board after Allotment.

Bankers.

THE NATIONAL BANK OF SCOTLAND (LIMITED), 37, Nicholas Lane, London; Head Office, Edinburgh; and Branches in Scotland.

THE UNION BANK OF AUSTRALIA (LIMITED), Coolgardie, Western Australia.

Solicitors.—BURN AND BERRIDGE, 11, Old Broad Street, London.

Brokers.

BARBER AND BRIDGFORD, 2, Drapers' Gardens, London.

HARDIE and TURNBULL, 42, George Street, Edinburgh.

Auditors.

MONKHOUSE, GODDARD, and CO., Chartered Accountants, 28-29, St. Swithin's Lane, London.

Secretary and Offices (*pro tem.*)—FRANK TURNER, 18, St. Swithin's Lane, London.

PROSPECTUS.

This Company has been formed—

1. To purchase the benefit of a Contract (hereinafter mentioned) by which this Company will acquire for the period, and on the terms therein mentioned, the right to purchase a block of not less than 7000 acres of the valuable Freehold Property, situate in the Hampton Plains District, Western Australia, owned by the HAMPTON PLAINS ESTATE (LIMITED)—the important developments on which are now attracting universal attention.

If this Company decides to exercise the right to purchase a Block as above, a separate Company is to be formed, to acquire the same, and the consideration payable to the Hampton Plains Estate (Limited) is to be satisfied wholly in fully-paid Shares.

2. To purchase the benefit of a Contract (hereinafter mentioned) by which this Company will acquire for the period and on terms therein-mentioned, the right to prospect over and select Gold Mining Claims on about 114,000 acres of the above Freehold Lands owned by the HAMPTON PLAINS ESTATE (LIMITED).

Under the conditions of this Contract this Company can select Gold Mining Claims of 25 or 50 acres each, so long as they are not within certain stipulated distances of each other. In the event of this Company working any of the Claims the Hampton Plains Estate (Limited) will be entitled to one-fourth of the profits resulting from such working, and in the event of this Company forming other Companies to purchase and work the Claims, the Hampton Plains Estate (Limited) will be entitled to one-fourth of the nominal Capital of any Companies so formed, such one-fourth to be paid entirely in fully-paid shares. One-fourth of the nominal Capital of any such Companies is to be set aside to provide Working Capital.

The whole of the above Freshlands are exempted from all land taxes, charges or assessments, until the 30th June, 1895. The Royalty payable to the West Australian Government is only 2s. per oz. on gold raised.

3. To acquire the lease of and work a Gold Mining Property situated about one and a half miles S.E. of the town of Coolgardie known as the "Orient" Mine, comprising an area of about fifteen acres.

4. To acquire the Gold Mining leases of about thirty acres adjoining the above-mentioned "Orient" Mine and to develop the same, and, if thought advisable, to work, or to dispose of them or portions thereof to other Companies.

The "Orient" Mine and adjoining leases have been visited several times lately by Mr. E. HERBERT LAPAGE, who has reported upon the same to the Directors, and recommends the property. Whilst at Coolgardie he acquired these leases on behalf of THE SWAN SYNDICATE (LIMITED), of which he is a Director and Shareholder. THE LONDON AND WEST AUSTRALIAN SYNDICATE (LIMITED) have obtained and handed to the Directors of this Company the report on the "Orient" Mine, of Mr. W. H. MATTHEWS, the General Manager of Bayley's Reward Claim Gold Mining Company (Limited). Copies of both these reports accompany the prospectus.

As regards WATER it will be seen by the above-mentioned reports that this Mine is naturally favoured, owing to there being on part of the "Orient" Mine a natural catchment for rainfall, and that on the remaining part a tank or reservoir has been excavated and an embankment thrown across, by which means several millions of gallons can be collected. Mr. HERBERT CALTHROP JONES (Manager of the Mine) writing on February 4, says, he is selling Water and that he has fenced in the dam.

RAILWAY.—The Railway to Coolgardie is expected to be completed about the end of the current year, when the Orient property will be within about 1½ miles of a station.

The London and West Australian Syndicate (Limited), who are the Vendors to, and promoters of, the Company, have fixed the price to be paid by the Company for the properties at £35,000, payable as to £10,000 in cash, £25,000 in fully paid shares, and the balance in cash or fully paid shares, or partly in cash and partly in fully paid shares, at the option of the Directors. This will leave 45,000 shares available for providing working capital as required, but at present it is proposed to hold at least 20,000 in reserve for future issue. The Vendors reserve the right of subscribing for 10,000 of these shares at par, for 12 months, from the date of the first allotment of shares.

The following Contracts have been entered into—viz.:—Two Agreements dated respectively 20th December, 1894, and 5th March, 1895, both between Hampton Plains Estate (Limited) and Lord Castletown, Lord Arthur Butler, and Benjamin Septimus Brigg (Trustees for Debenture Holders of that Company), and London and West Australian Syndicate (Limited); an Agreement dated 9th January, 1895, between Richard Herbert Lapage (acting for the Swan Syndicate, Limited), and London and West Australian Syndicate (Limited); and an Agreement dated 14th March, 1895, between London and West Australian Syndicate (Limited), and Robert Smith as Trustee for the Company.

These Contracts, together with the Reports of Mr. E. Herbert Lapage and Mr. W. H. Matthews, can be inspected at the offices of the Solicitors.

The Vendors have entered into agreements and arrangements with third parties for guaranteeing the subscription of the Capital of the Company, to none of which the Company is a party. Applicants for shares will be deemed to have had sufficient notice of their nature and contents, and to have waived their right (if any) to any particulars of these agreements and arrangements, whether under Section 33 of the Companies Act, 1867, or otherwise.

The Vendors will pay all expenses of and incident to the promotion and formation of the Company up to and including allotment.

Applications for shares should be made on the form accompanying the Prospectus, and forwarded to the Company's Bankers, together with a remittance for the amount payable on application. The allotment will be made as early as possible after the subscription list is closed, and in cases where no allotment is made, the amount deposited on application will be returned at once, without deduction. If the number of shares allotted be less than that applied for, the surplus will be credited to the reduction of the payment on allotment so far as necessary, and any balance will be returned.

Prospectuses and Forms of Application can be obtained from the Bankers, Brokers, Solicitors, and at the Offices of the Company.

London, 25th March, 1895.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

The Mysore Gold Mining Company.

The following is taken from the report of the directors:—
"The gold obtained during the 12 months realised the sum of £203,087 6s. 2d., and the receipts from other sources amounted to £1178 8s. 3d., making the total income £204,265 14s. 5d. Against this has been charged the revenue expenditure in India and England for the year, amounting to £112,798 16s. 10d., and the royalty on gold £10,041 3s. 3d., thus there is a balance of profit on the year's working of £81,430 14s. 4d. To this profit have been added the sum brought forward from 1893, and the balance of profit on sale of property to the Champion Reef Company, making altogether a total of £83,055 16s. 9d. This has been dealt with in the following manner: Two interim dividends, paid on 11th July and 17th November, 1894, of 2s. and 1s. per share respectively, £37,341; income tax, £4102 1s. 3d.; written off for depreciation of machinery, &c., £5864 16s. 2d.; amount carried to sinking fund £10,000 = £57,307 17s. 5d. The balance carried forward, £25,747 19s. 4d.; total, £83,055 16s. 9d. This balance admitted of a further dividend for the year of 2s. per share, which was paid on the 14th March inst., absorbing £24,894, thus the balance in hand at the end of the year was £853 19s. 4d. It will, therefore, be seen from the foregoing figures that the dividends distributed amongst the shareholders out of the profits for 1894 amounted to 5s. per share, representing a total of £62,235. The directors are pleased to report considerable reduction in the costs as compared with the year previous. Notwithstanding increases in the quantities of quartz and tailings treated of 11,135 tons and 4262 tons respectively, the total expenditure on revenue account was actually less than 1893 by £4737 12s. 10d. The comparative figures of total costs in India and England for the past two years are—1893, £2 7s. 2d. per ton; 1894, £1 17s., or a reduction of 10s. 2d. per ton. Exclusive of the amount of expenditure on the treatment of tailings, the cost per ton of quartz crushed was £1 10s. 9d., against £1 19s. 6d. in 1893. Various circumstances have combined to bring about the large reduction named, among which may be mentioned the completion of the railway, whereby all supplies have been carried direct to the mines, the new and favourable explosives contract referred to in the last annual report, the low rate of exchange, and the reduction in the administration expenses. The profit for the year amounted to £81,430 14s. 4d., as compared with £124,437 2s. 6d. in 1893, being a diminution of £43,006 8s. 2d. The reason for this decrease is the falling off in the grade of the ore. A much larger quantity of both quartz and tailings were treated, but in consequence of the lower quality the gold obtained showed a decline of 13,294 ounces, representing in money value £51,838 1s. 11d. The milling operations have been carried on with regularity, and the quantity of quartz and tailings treated exceeded that of any previous year in the company's history by 15,248 tons. The actual results were as follows:—Quartz crushed, 80,957 tons, producing 44,138 ounces of gold; tailings treated by amalgamation, 53,507 tons, producing 7977 ounces; tailings treated by MacArthur-Forrest process (preliminary trials, November and December), 1004 tons, producing 158 ounces; total, 52,273 ounces of gold. The directors believe that the falling off is only temporary—in fact, the yield has been gradually improving during the past six months; and, judging from the recent developments in the

neighbourhood of Rowse's shaft, there is reason for anticipating that a still further increase will take place as the points are developed. The capital expenditure for the year amounted to £34,137 8s. Out of this, the sum of £13,481 9s. 9d. was for buildings, machinery, &c., principally in connection with the equipment of Ribblesdale's shaft, and the erection of the cyanide plant. The balance of £20,655 18s. 3d. represents the year's expenditure upon new and unproductive works, which includes cost of sinking Ribblesdale's shaft and rising against it, sinking Crocker's shaft, the prospecting work at Glen shaft, eastern prospect shaft, &c., the whole having a most important bearing upon the future working of the company's property. The directors have carried the sum of £10,000 to sinking fund out of profits, bringing the total of that fund up to £50,000, still further strengthening the company's financial position."

The Nundydroog Company.

The report of the directors states that the total income on revenue account for the 12 months amounted to £111,266 2s. 10d., the sum of £110,304 8s. 9d. being realised for the gold produced, and the balance received from other sources. The expenditure on revenue account in India and England was £59,783 8s. 9d., and the royalty on gold amounted to £5469 11s. 2d., together £65,252 19s. 11d., which sum has been charged against income, leaving a profit on the year's working of £46,013 2s. 11d. To this amount the balance of £1383 13s. 11d. brought forward from 1893, and £174 3s. 9d. recovered from underwriters at Lloyd's, as shown in the profit and loss account, have been added, making a total disposable sum of £47,571 0s. 7d. This has been dealt with as follows:—Interim dividend of 1s. 6d. per share, paid December 1, £16,460 5s.; income tax, £1665 18s.; written off for depreciation of machinery, &c., £3858 0s. 8d.; reserve fund, £1000; unproductive expenditure, £7083 4s. 6d.; = £30,047 8s. 2d.; leaving a balance to carry forward of £17,523 12s. 5d.; total, £47,571 0s. 7d. A further dividend of 1s. 6d. per share has been declared out of this balance, payable on 26th instant, which will absorb £16,460 5s., leaving in hand £163 7s. 5d. The total amount divided amongst the shareholders out of the profits of 1894 was 3s. per share, representing a total of £32,920 10s. A most satisfactory feature in connection with the past year's operations is a great reduction in the working costs. Whereas the expenditure for 1893 amounted to £2 4s. 10d. per ton of quartz, excluding the cost of treatment of tailings, the corresponding figure for last year was £1 18s. 3d., or a reduction of 6s. 7d. per ton. The comparative figures of cost per ton of quartz, including the expenditure on tailings are, for 1893 £2 7s., and for 1894 £2 0s. 2d. This reduction is due to a large extent to the new railway to the mines having been completed, whereby all supplies are now carried direct to the mines, also to a new and favourable explosives contract, and the low rate of exchange. It may be mentioned that the total revenue expenditure was less by £821 6s. 11d. than that of 1893, although the quantities of quartz and tailings treated exceeded those of the previous year by 3990 tons and 636 tons respectively. Regular operations have been carried on in the milling department, and the results obtained have been as follows:—29,760 tons of quartz crushed produced 28,200 ounces of gold, and 7625 tons of tailings treated yielded 1457 ounces; making a total return of 29,657 ounces of bar gold. For the first half of the year the quality of the quartz was much lower than it had ever been; but during the latter half, owing to considerable improvements taking place at various points in the mine almost simultaneously, there was a marked increase. The actual yield of the quartz for the first six months was 14 dwts. 9 grains per ton, whilst for the second half of the year it was 1 ounce,

3 dwts. 5 grains. During the year the sum of £593 17s. 9d. was expended on machinery, plant, buildings, &c., and is, therefore, added to the inventory to 31st December last. A further sum of £7063 4s. 6d. was spent on unproductive work connected with the development of the property, the whole of which is charged against profit and loss. It will also be observed that £1000 has been added to the reserve fund out of last year's profits.

St. John Del Rey Mining Company.

The following circular has been sent to the shareholders:—"Important letters were received on the 23rd March from Mr. Chalmers, dated Morro Velho, 26th February. They deal partly with the reduction which, apart from the amalgamation process, has been very successful. The winding machinery is above expectation; the haulage power for bringing the cars from the adit to the mills now works well; the transmission machinery is also up to the calculations made; and the mills are doing duty equal to 1½ ton per stamp head per 24 hours, against an average of 1½ ton, the working of the old mills during a period of 12 years. The straking floors are saving 10 tons of concentrates per 100 tons of mineral crushed, as against an average of 6 tons per 100 tons for the above period, and contain 80 per cent. of the total gold contents of the mineral crushed; but here the success ceases, and instead of recovering 90 per cent. of the gold contents in the concentration by amalgamation, the recovery for December and January amounts to barely 75 per cent. of the gold contained in the concentrates. It remains to be seen what proportion can be further recovered by re-crushing, or by grinding the concentrates and re-amalgamating them. Should this not be successful, it will be necessary to reduce the amount of duty per stamp head, and crush the sand to still finer texture, and then the proper proportion of gold existing in the concentrates will be recovered. The new 30-stamps mill is completed, and the straking floors and amalgamation plant well forward, but the heavy rains have delayed the latter work and added to the expense. Delays of all kinds have also ensued from the miserable condition and bad service of the Central Railway. Timber, cars, cement, and stores of all kinds that were sent forward from Rio de Janeiro in January are still at various stations on the line, and Mr. Chalmers has had to send men to find out where they are, and to endeavour to expedite their dispatch. The service is, in truth so abominable that he now presses the board to let him have in the course of the dry season at least three months' store of all essential requirements; he is also anxious to have electrical power to enable him to sink about 500 feet in the lode below the No. 8 or tram level, the lowest level now driven. The capital outlay has been heavy for erecting the last 30-head mill; excavating, bricking, and concreting the straking floors, and sending forward a large supply of timber, iron, wire, steel, &c., required. The directors will deal with Mr. Chalmers' further requirements as soon as they know that shipments can be sent forward from Rio without undue delay, and when the earnings at the mine will give them the necessary funds to pay for the additional machinery, plant, and stores referred to, and they hope that now the rainy season is over the authorities will endeavour to render the railway service reliable."

The Alamillos Company (Limited).

The profit on the past six months' operations has amounted to £1103 13s. 7d. This is less than the profit of the preceding half-year, but it compares very favourably with that shown for the corresponding period of 1893. The reserves of ore have been maintained at the quantity reported six months ago—viz., 3200 tons. In addition to the payment of 6d. per share, the directors have placed £200 to the credit of the reserve fund.

C. PASS & SON (Limited), BRISTOL,
ARE BUYERS OF
LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS,
ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c.
and DROSS or ORES containing
TIN, COPPER, LEAD, AND ANTIMONY.

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PRINCE OF WALES DOCK, SWANSEA.**
Ores, Mattes, Regulus, and Bars received and prepared for market.
Copper, Lead, Tin, Spelter, and Pig Iron Received, Weighed, and
Sampled, and Warrants issued against same.
N.B.—Warrants are on accepted list of London Metal Exchange.
Regular lines of steamers from America, Europe, &c.
Consign goods to Lambert's Cranes, Prince of Wales Dock, Swansea

THE BUTE WORKS SUPPLY COMPANY,
133, BUTE DOCKS, CARDIFF.
Telephone : No. 45 (Post Office and National).
Telegrams : Gething, Cardiff.

RAILWAY WAGONS (New and Second-hand) for Cash, Redemption Purchase, Simple Hire, or Tonnage Hire. 50 perfectly new, 50 only 10 months old, and 130 only three years old, all to Latest Regulations, now here ready for Lettering. A large number of other Wagons, now on tonnage hire, for Sale. Full particulars on application.

LIME WAGONS.—12 10-tonners, with covered tops, two side doors, and four roof doors, £32 10s. each at Cardiff.

EARTH WAGONS.—75 side and end tipping, 30-inch gauge, new frame, and new tops, steel wheels and steel axles, £5 each, f.o.t. Cardiff.

RAILS.—Bridge, Flange, Double Head, and Bull Head, with or without fastenings.

SLEEPERS.—Wood and Steel for all gauges.

PORTABLE RAILWAY.—£9 18s. 9d. per 100 Yards of Railway, comprising 200 yards of new Steel Rails, 14 lbs. per yard, and 100 Iron Sleepers, 24 inches gauge.

LOCOMOTIVES.—Six wheels coupled, by Manning, Wardle, and Co., 12 inches by 17 inches, now at Cardiff; also six wheels coupled, by Avonside Engine Company, 14 inches by 20 inches, now near Cardiff; both recently thoroughly overhauled, and ready for instant work; cheap for cash, or three years' redemption purchase.

PACIFIC MINING AGENCY AND TRUST COMPANY.

A Corporation organised under the Laws of the State of California.
CAPITAL STOCK, £50,000.
BOARD.

IRWIN C. STUMP (Chairman) Manager of the Estate of the late U.S. Senator Hearst.
IRVING M. SCOTT, Manager Union Iron Works.
JACOB H. NEFF, President California Miners' Association.
P. N. LILIENTHAL, Manager Anglo-California Bank (Limited).
W. F. GOAD, Vice-President, Wells, Fargo, and Co.
D. M. BURNS, Capitalist.
R. C. CHAMBERS, Manager Ontario Mine, Utah.
WILLIAM C. RALSTON, Secretary (Secretary California Miners' Association).

BANKERS—The ANGLO-CALIFORNIAN BANK (Limited).
HEAD OFFICE—MILLS BUILDING, SAN FRANCISCO, CAL.

THIS COMPANY sells Mines, Mining Claims, Ditch Properties, and Water Rights on COMMISSION, and will act as Agent and Broker for the Sale and Purchase of such Properties.

It is intended to conduct the Purchase and Sale of Mining Claims, Ditch Properties, and Water Rights on the same basis as a real estate transaction.

The Company is prohibited by its Articles of Incorporation from buying or selling on its own behalf, or except upon commission, or as agent or factor for others.

The buyer pays no fees whatever, and there is no incentive to advance the price beyond the original figures at which the price and commission have been agreed upon with the seller.

It is not intended only to negotiate the sale of an entire property but interests in such may be sold or money obtained for development work.

This Company especially solicits the business of making reports or examinations for non-resident mine owners on any of their mines in the United States, and obtaining special information as to their condition and so forth (said reports being confidential).

Those who conduct the business of the Company have had long experience in mining operations, and it is their intention to place the Company in a position to inspire the confidence of all who seek its assistance in its integrity and fair dealing.

We respectfully refer to any Bank in the City of San Francisco and to the Anglo-Californian Bank (Limited), London, as to the standing of the Board of Directors of this Company.

Descriptions of properties for sale with maps, reports and all necessary information, are left on file in the office of the Company. Abstracts of such reports with prices of mines will be furnished upon application.

California has produced £267,000,000 in gold, and is still producing £2,680,000 a year. There are thousands of claims requiring capital for development. In other Pacific Coast States and Territories there are abundant opportunities for investment in mines of gold, silver, copper, lead, coal, and so forth. Information concerning these will be furnished by this Company on application.

This Company will also furnish competent engineers, superintendents, foremen, miners, millmen, assayers and others connected with the mining industry on application, furnishing their references and so forth.—Cable Address, "CHAPIN," San Francisco.

WE are instructed by the MOUNT LYELL MINING and RAILWAY COMPANY (LIMITED), of Tasmania, to INVITE TENDERS from

SMELTERS, or their Agents, for the undermentioned parcels of RICH ARGENTIFEROUS COPPER ORE, lying at Measra, Richardson and Co.'s Ore Wharves, Swansea, and we shall be glad to forward sealed samples of the various lots on application.

Tenders must be lodged at this office not later than 2 p.m. on Thursday, the 4th April, 1895, stating the price per ton of 20 cwt. (dry weight) for each lot of the Ore, including Copper, Silver, and Gold contents, without any draft or deductions whatever. Moisture, if any, to be taken at the time of delivery.

The Ore to be packed and taken from the Wharf on Warehouse Weights by the Buyers, at their risk and expense, within seven days after the Sale.

Payment to be made by good and approved Bills at two months' date, or in Cash, less Discount, at Sellers' option.

Should two or more Buyers offer the same price, such being the highest price, the ore to be equally divided between them.

It is intended to accept the highest Tender, but we reserve to ourselves the right of declining to sell.

VIVIAN, YOUNGER, and BOND,
117, LEADENHALL STREET, LONDON, E.C.

The particulars are as follows:—

Tons. cwts.

ex "Ballaarat" (s.)	Lot 1 weighing about 4	10
	" 2 "	" 4 10
	" 3 "	" 4 9

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NICKEL AND COBALT REFINERS,
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MANUFACTURERS,
BIRMINGHAM.**

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200 Goldfields Pref., £1 1s. 250 Umtali Reef, 1s. 3d. 113 West Francois, 1s. 100 Idaho, 3s. 6d. 175 Abercrombie Reef, 1s. 3d. 500 Vic. & Alta. Pts., 2s 6d. 200 African Gold Com., 6s. 100 Spitzkoppe, 15s. 300 Dickens' Custer, 2s. 10 Cora Brea, 2s. c. pd. 200 Coetzestroom, 5s. 6d. 20 Cooks' Kitchen, 15s. 200 Gold Coast Dev., 5s. 6d. 300 Murdochson G. Fids. 6s. 750 St. Augustine, 8s. 3d. Special business in Cornish shares.

Apply, W. SEWARD and Co., 7, Drapers' Gardens, E.C.
Telegraphic Address—"SEWARD, London."

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LONDON: MARCH 30, 1895.

DIAMOND WASHING AND CONCENTRATION.

WE have of late devoted a long series of leading articles to the consideration of the appliances used in the concentration of metalliferous minerals, and also to the washing and concentration of coal. We have lately had an opportunity of inspecting a new plant designed for carrying out similar operations with respect to the diamondiferous blue of South Africa, and our readers will, doubtless, be interested in learning how this operation is to be performed. The blue ground, in which the diamonds are found, comes up from below as a funnel-shaped mass, surrounded by what is called reef. This reef is composed near the surface of loose yellow shale, changing soon to black, and followed by a hard, amygdaloid rock. Inside the boundary of the reef the surface soil is red and sandy. Below this comes a yellow, calcareous, gravelly deposit, under which, again, the ground is of a blue and slatey nature, and on this lies the chief source of diamonds, although stones of a large size have been found in the

yellow ground. As a rule, however, with the exception of the Kimberley Mine, the upper strata do not pay to work. In some instances, and for a limited distance, this blue ground can be excavated downwards as an open quarry, as at Wesselton; but owing to the frequent slips at the sides the Kimberley, De Beers, and other mines are now worked on an underground system somewhat similar to that employed in slate quarrying underground.

The blue ground as it is hauled up from the mines is drawn away in trucks by means of locomotives to the depositing floors. These floors are immense tracts of land covering many hundreds of acres, from which the herbage has been removed, and the ground, after being levelled, made hard and smooth. The blue is deposited here, and the action of the weather soon disintegrates the hard material, causing it to slake, the process being accelerated by the constant harrowing to which the surface is subjected, which exposes the whole mass to the action of the air. The time taken to effect the operation takes from three to six months, according to the mine from which the blue was obtained, and after it has been thoroughly effected, it is carried back again to the washing machinery. Now, it is very evident that this long process of slaking, involving the transport of the blue to the floors, the turning of it over constantly while there, and the reloading of it, and carriage back to the washing machinery, is a costly operation in itself; and, in addition, entails the lock up of a large amount of capital during those months, and prevents the value of the ground from being rapidly ascertained and realised. The new process and machinery which we shall describe presently is designed to do away with all this waste of labour and time by abolishing the necessity for disintegrating the blue, but before entering into its details we will continue our description of the machinery now in general use at the mines, in order that the comparison may be effective and clear. The floors upon which the blue is deposited have, of course, to be fenced in and guarded by armed patrols night and day, owing to the valuable contents of the stuff, which at the De Beers Mine is estimated to contain one and a half carat weight of diamonds per load of 1600 lbs., the value of the carat varying according to the market and quality of the diamond between 2s. and 30s. In the early days of the diamond industry, the precious stones were separated from the mass of excavated ground by what was known as dry sorting, which consisted principally of getting rid of the dust and sand by means of sieves, and then hand-picking the pebbles and gravel on a picking table; this process, however, was so inefficient that the heaps of debris left by it have, in many cases now, been washed over again by the machines with excellent results.

This simple method was superseded by the machinery now in actual use, and which consists of rollers for crushing up any lumps of blue not completely disintegrated followed by a sorting trommel, which rejects stones too large to contain diamonds, but allows all the puddle and gravel to pass through the meshes of its screen into the rotary washing machine which follows next. This machine consists of an annular shaped pan from 8 to 14 feet diameter, closed by an outer and an inner rim, the latter being about 4 feet in diameter, and not so deep as the outer rim. A vertical shaft rotates in the centre of the pan, and carries ten arms, ranged radially from it, each arm having about six vertical knives or teeth, which are set to within $\frac{1}{2}$ inch of scraping the bottom of the pan. The puddle supplied from the trommel is thus continually stirred up by the revolving knives, and the lighter mud and slush flows over the inner rim, and is elevated to the waste heap, the water being allowed to drain back for use over again. The heavy gravel and pebbles thus washed free of mud are left in the bottom of the pan, the original bulk of stuff being reduced in the process to one-tenth, and the pans are cleaned out at the end of the day. The diamondiferous gravel thus obtained is then sorted in trommels and fed into pulsators, which are nothing more or less than our old friends, the single compartment jiggers. By this means the diamonds, garnets, and iron pyrites, which form the heavier portions of the ground, are separated from the lighter, and, as owing to the similarity of their specific gravities they cannot be further separated by a mechanical process, they are conveyed to a sorting room while wet, and the skilled eyes and fingers of the sorters complete the separation of the diamonds from the other materials.

An improvement upon the arrangement just described has been designed and patented by Mr. T. G. McCULLAND, a gentleman well known in South Africa, where he is at present employed as the general manager of the New Gordon Diamond Company (Limited), by means of which the long and expensive process of disintegration upon deposit floors is, as we have already intimated, done away with. The plant, which is designed to treat 2000 tons of ground per day, has just been constructed by the Chatteris Engineering Company, at whose works at Chatteris, in Cambridgeshire, we recently had an opportunity of inspecting it. A sketch section, showing the general disposition of the machinery will be found elsewhere, and it should be remarked that it is constructed in duplicate, so that either half can work independently of the other during unavoidable breakdowns. The blue as it comes direct from the mine is discharged from the trucks over an iron grizzly, the bars of which are 3 inches apart. The coarse stuff falls into the stone-breaker immediately below, and the fine, which has passed through the bars, joins the discharge from the breaker, and together are fed into the roller crushers by means of an automatic feeder. The rollers, which are corrugated, have a diameter of 4 feet, and are set so that their faces can never be less than $\frac{1}{4}$ inch apart, as all that is required is to break up the lumps of blue without crushing the stones and gravel. Passing from the rollers, the material is divided between pulsators or single-compartment jiggers placed in a row. The heavy gravel and pebbles are here separated from the lighter materials, and in part accumulate on the sieves, and in part pass through them into the boxes beneath from whence they are conveyed, together

with the products of the other pulsators to a common storage bin. The lighter matter driven by the action of the water over the edge of the first line of jiggers falls direct between the faces of another pair of 4 feet corrugated rolls, the faces of which are $\frac{1}{4}$ inch apart, and after being crushed here, with a view to separate the finer gravel from adherent lumps of blue, the material is elevated and fed into a second line of pulsators, being again divided into gravel and mixed material. This latter passes between the faces of another pair of 4 feet rolls with plain surfaces set $\frac{1}{4}$ inch apart, and then is fed into a third line of six pulsators. The discharge from these latter is counted as waste tailings, and is allowed to settle in a long settling tank, along the bottom of which a series of scrapers draw out the sludge as it gravitates to the bottom. The clear water is drawn off by a centrifugal pump, and used over again in the machinery. The gravel separated out by the pulsators, and which contains the diamonds, is conveyed by mechanical means to a large iron tank, where it is stored until a sufficient quantity has accumulated for treatment in the wash-up machine. Before being fed into the wash-up machinery, the gravel is classified by means of revolving trommels, and each size is fed into a pulsator or jigger. The light gravel and pebbles are thus separated from the heavier, which consists of garnets, iron pyrites, and diamonds; and these, passing through the beds and sieves of the jiggers, are elevated by means of small water-tight and thief-proof elevators, and are discharged into lock-up boxes immediately above the sorting-tables. The water used in the process is separated from any sludge it may contain, and is lifted by means of a scoop wheel and used over again. As far as possible steel has been used in the construction of the plant, in order to reduce its weight as far as is consistent with the production of sound machinery. The whole is mounted upon a solid framework of pitch pine, and will require the services of an engine of about 450 h.p. It is claimed that by means of this new arrangement of plant the cost of mining and washing the diamondiferous blue will be reduced from $\text{£}1$ per ton, in addition to the advantage gained by treating the material immediately it has been mined, and it appears to us that there was every probability of this being done.

We have left the rich gravel containing the diamonds in the hands of the sorters, who are white men, and who take out the bulk of the diamonds. The refuse, however, from there is picked over again twice by native sorters, so that the waste, which is finally thrown away, is to all intents and purposes worthless. The sorters, by long practice, acquire very great skill in detecting and separating the diamonds from the material with which they are mixed, and as the precious stones are of every variety of colour, from deep yellow to blue white, with many intermediate varieties, their unerring accuracy is marvellous.

After leaving the hands of the sorters the diamonds are cleaned by being sorted in a mixture of nitric and sulphuric acids, and in this stage they resemble pieces of dull glass. A final sorting, or rather classification, according to size, colour, and purity then takes place, followed by a valuation, after which they are ready for sale to the representatives of the European and American houses, who purchase them in parcels varying from a few thousand up to as much as a quarter of a million carats. It is evident that such an industry cannot be carried on without incurring large losses from theft, and, in spite of the vigorous methods enforced for the prevention of theft and illicit dealings in diamonds, it is estimated that as much as 10 to 15 per cent. of the stones are lost by these means.

THE OUTLOOK FOR METALLIFEROUS MINING.

If the movement which has lately taken place in gold mining shares, and which has produced a rise of eight millions sterling in the values of the Rand companies, continues for a short time only, it must indubitably provoke a corresponding revival in the metal markets. For it is apparent that, for a long time past, the production of metals has been far below its fair proportion to the natural increase of consumption. If prices remain at their present level it is merely because the generally depressed tone of finance has reacted upon the metallurgical industries, and closed up the channels which absorb the usual output of metals. Take copper, for instance. One of its principal uses is in connection with electrical installations, but general distrust in financial circles, as well as the "cranky" attitude of labour, have prevailed to prevent quite a crop of electrical schemes in this country from coming to fruition. The Socialistic spirit in public bodies has placed so many restrictions upon private enterprise for public ends that capitalists have not found it advisable to carry their schemes further. Abroad the demand for engineering material of all kinds has been checked by the general depression, and it must not be forgotten that South America and Australia, two of the most important markets in this connection, have been most seriously affected. The result of the reduced consumption of metal upon prices has been a fall so considerable, that a recent electric lighting scheme in London was carried out at a saving on the estimate on copper alone of £6000. This possible economy again brings in a new element of encouragement, for the cheapness of so important a material must, naturally enough, weigh against unfavourable circumstances to cause a disposition towards electrical enterprise. As a result of this feeling many new schemes of this kind now seem likely to be brought into operation, and we do not see why a general financial revival, which is certainly "in the atmosphere," as one may say, should not produce a boom in this branch of engineering. Railway construction and other public works also bring grist to the mill of the copper producer, and in every branch of such undertakings there seems some reason for expecting a recovery before long. We should say, therefore, that the copper market is not likely to remain many months in its present de-

pressed position. The tendency lately shown in Paris to speculation in copper shares is a strong confirmation of the view that the heavy buying in gold mines is sure to extend to other classes of mining shares. The way in which some of the Spanish concerns are making headway against the depression shows the Parisian investor that copper mining is not such a hopeless speculation as would seem to be implied by the lowness of metal prices, and it is an article of faith with holders of this class of scrip that only a slight incentive is needed to bring about an upward movement in share values. So far as production goes the outlook for copper is altogether favourable. It would be absurd, in face of the repeated failures in the past, to advocate any systematic restriction of output for the raising of prices, but there is no reason why reckless over-stocking should not be prevented in times of slack demand by mutual agreement. It is now understood that the American companies have decided not to increase production above a certain level during the current depression in prices, and with the smaller shipments that have taken place for some time past, private stocks must have appreciably declined. Tin may be said to stand on all fours with copper, in so far as it seems to be favourably situated for the spurt in general trade, which many authorities believe to be imminent. There has also been of late a perceptible revival of speculation in tin mining shares. Cornwall is not, perhaps, quite likely to enjoy the full advantage of any upward movement. The disturbing rumours about the Swaziland deposits do not seem to have much proof, and there may be some hope of the abolition of the Stannaries and the Cost-book system being at last carried into effect. Moreover, the Carn Brea, Dolcoath, and Wheal Agar have all of late furnished examples of an intention to mechanically equip Cornish tin mines in a progressive and intelligent spirit. But, on the other hand, there is the serious fact that the United States is now producing some half a million tons of tin plates yearly, instead of importing them from South Wales. Still, Cornwall cannot fail to benefit from any circumstance which tends to the general prosperity of the tin market.

NOTES AND COMMENTS.

THE brisk activity that characterised the Indian section of the market during the earlier portion of the week was the natural consequence of the satisfactory and encouraging reports issued by the directors of the Mysore and Nundydroog companies. They seem to have made an opportune appearance, for of late Indian shares have altogether been left out in the cold. The total income during the 12 months' working of the Mysore Company realised £204,265 14s. 5d., which, after paying off all liabilities, left a balance of profit of £81,430 14s. 4d. Now, when we compare this profit with that earned during last year—£124,437 2s. 6d.—our enthusiasm is cooled, nor is it re-warmed when we are told that the reason for this diminution was a falling-off in the grade of the ore. The only word of relief that the directors can give us is their belief that the falling-off is only temporary; in fact, the yield has been gradually improving during the past six months, "and," they go on to say, "judging from the recent developments in the neighbourhood of Rowse's shaft, there is reason for anticipating that a still further increase will take place as the points are developed." With this evidence before us, we are quite willing to regard the future with hope, for we bear in mind, at the same time, that, in the very nature of mining, we must anticipate such temporary fallings-off.

BUT it is when we come to compare more closely the position of the Mysore Company, as compared with the position occupied by many other concerns which are regarded with greater favour by the investor and speculator, that astonishment seizes us. We have always been staunch adherents of Indian mining, and as yet we have never had reason to repent such adherence. The reports which have been issued this week will, if anything, re-establish our faith, for abundance of reliable evidence is furnished us that mining there is far from being played out. For instance, we are informed by the directors of the Mysore Company that the milling operations have been carried on with regularity, and that the quantity of quartz and tailings treated has exceeded that of any previous year in the company's history by 15,248 tons. But what has tended more than anything else, perhaps, to increase the confidence in the company is the considerable reduction that has been made in the costs, for, notwithstanding the increases in the quantities of quartz and tailings treated, the total expenditure on revenue account was actually less than 1893 by £4737 12s. 10d. Then the directors are giving a trial to the cyanide process, with a view to determine whether the tailings can be more profitably treated than hitherto. As yet, the plant is not in working order, but when it is, the results will be watched with considerable interest. Altogether, there is abundant reason to be highly pleased with the report of the directors of the Mysore Company, and shareholders may, therefore, take heart to look to the future with hope.

A STORY in almost identical terms is told by the directors of the Nundydroog Company. It will be remembered that in the last annual report the board lamented the necessity of chronicling a disappointing year, due entirely to a considerable decrease in the yield of the ore. This falling-off they regarded as temporary, and we are pleased to note that their belief was well founded. The past year has been as successful as the previous one was disappointing. The total income on revenue account was £111,266, the sum of £110,304 being realised for the gold produced, and the balance received from other sources. The expenditure on revenue account in India and England was £59,783, and the royalty on gold amounted to £5470, together £85,253, which has been charged against income, leaving a profit on the working of £46,013, which is raised by some other

odd sums to £45,571. An interim dividend of 1s. 6d. per share was paid in December, £3858 has been written off for depreciation of machinery, &c., £1000 transferred to the reserve fund, and £7063 represents unproductive expenditure. A further dividend of 1s. 6d. per share has now been declared, after payment of which there will be left a balance in hand of £1063. The total amount divided amongst the shareholders was 3s. per share, which represents 15 per cent. Here, as in the Mysore Company, there has been a reduction in the working costs. Whereas the expenditure for 1893 amounted to £2 4s. 10d. per ton of quartz, excluding the cost of treatment of tailings, the corresponding figure for last year was £1 18s. 3d., or a reduction of 6s. 7d. per ton. The total revenue expenditure was less by £821, although the quantities of quartz and tailings treated exceeded those of the previous year by 3990 tons and 636 tons respectively. The reserves of ore standing in the mine on December 31 were estimated at 43,715 tons, as against 27,205 tons at the end of the previous year, an increase of 16,510 tons, notwithstanding that the extraction from the mine was greater by 3990 tons. In view of the increasing scale of operations, the directors have decided to send out an additional 30 stamp mill complete, with engine power for 40 heads, and all the necessary appliances.

THE first article on "Gold Mining in Wales," from the pen of our Special Commissioner, which we publish in this issue, leads to the conclusion that Wales is shortly to be the scene of extensive gold mining operations. Everyone interested in the industry will be delighted with this, and no one, we feel sure, will be more so than Mr. Pritchard-Morgan, M.P., the one man who has persistently, through good and evil report, believed in Wales as a payable gold field. Other people have at last come round to his way of thinking, for a large amount of capital is now apparently available for mining in the Merionethshire gold fields. Mr. Pritchard-Morgan has enjoyed the usual experience of pioneers. He was first laughed at; then, when it was found that he was in earnest, he was opposed by the landlords and hampered by the Crown; subsequently he was traduced as the raiser of false hopes. But he has lived through all these things, and by pegging away at his favourite hobby has kept the industry alive. For some considerable time past it has not only been alive, but highly remunerative. The Morgan Mine, now owned by the British Gold Fields (Limited), in which, we understand, Mr. Pritchard-Morgan and his family are by far the largest shareholders, has been paying consistently for the last seven or eight months, and the Clogau Mine, which Merthyr's junior Member was also instrumental in developing some years ago has, as our Special Commissioner says, yielded for the last two years an average of nearly 2 ounces to the ton, notwithstanding the somewhat prohibitive treatment employed. With cheap labour and ample water-power, both of which are available in Wales, and with the improved methods of gold extraction now in vogue, there is no reason why gold mining in the Principality should not fill up the place of mining for the baser metals which, in the British Isles, has long been an unremunerative industry.

AT the meeting of the Chemical Society, on Wednesday night, an announcement was made by Dr. Ramsay of special interest to mineralogists. The discovery of the new element, subsequently named Argon, in the atmosphere, by Lord Rayleigh and Dr. Ramsay, will not have been forgotten. In working further on this subject, Dr. Ramsay experimented on a Scandinavian variety of pitch-blende, known as Clevite, which has the peculiar property of evolving a gas which was always considered to be nitrogen when acted on by sulphuric acid. According to Dr. Ramsay, this gas is not nitrogen; it is the new element Argon, mixed with yet another gas, which appears to be the new element, Helium. The existence of this element had, hitherto, been suspected only in the atmosphere of the sun, and the only indication of its presence there was a certain line in the solar spectrum, which could not be identified with those emitted by any known body. Professor Crookes has now identified the new element, Helium, with the body presumably present in the sun. Further details will, no doubt, be forthcoming before long. Meanwhile this new discovery cannot fail to arouse intense interest in all connected with chemistry and mineralogy.

THE gentleman who presided at the annual meeting of the Meyer and Charlton Gold Mining Company, held at the beginning of the month, in South Africa, cheered the shareholders continually by having "pleasant features" to bring before them. Having exhausted one, he would start again with "another pleasant feature is," &c., and so on throughout his speech. Taking it on the whole, however, the shareholders must have been highly pleased with the statement put before them, for it really did contain numerous pleasing things. In the first place, the directors have fulfilled the promise they made to reduce the working expenditure, and have succeeded in doing so to the extent of 9s. a ton. What shareholders naturally wanted was, of course, some explanation of the lower yield obtained during 1894, and this was granted them. About a year ago it was determined to erect a new mill, to be double the capacity of the old one. In order to be in a position to supply the new mill by the time it was erected, development had to be pushed on, especially on a large scale in the Wolsingham and Wolhuter blocks. Now, the reefs in these claims were not so rich as in the Charlton block, nor were they so wide, and thus the lower yield was accounted for. The new 60 stamp mill, we are told, is well advanced, and the directors hope to be able to start crushing, at the latest, by the middle of May. In consequence of the prevalent scepticism respecting the life of mines on the Rand, the board have had the mine surveyed, and have been assured that it has a life of something like 25 years before it.

A HIGHLY satisfactory year's working is reflected in the report recently presented to the shareholders of the Chiapas Mining Company, and abundantly criticised at the annual meeting of the company held on Tuesday last. The result of the 12 months

operations is a profit of £7139, and the shareholders would by this time have received a substantial dividend were it not for the fact that some important additions have had to be made to the plant and machinery for the development of the mine, and the treatment of large accumulations of tailings. All that is necessary in this direction has not yet been provided for, and the bulk of next year's profits will have to be devoted to the same purpose. Undoubtedly the soundest policy would be the one proposed by Mr. Frecheville—the subscription of a certain additional capital for the immediate extension and perfection of the plant. Under those circumstances, the operations at the mine would have been conducted with all the additional advantages which are to be derived from a mine equipment of high efficiency, and there can be no question but that the shareholders would have become the happy recipients of the patiently-awaited dividends at a much earlier period. It is difficult to see what cause the shareholders can have for feeling at all pessimistic about the future of the property. A profit of the amount we have mentioned is an unquestionable indication that the mine has considerable powers such as only require to be developed with judgment and ability to ensure to it a profitable career and a long occupancy of a distinguished position in the dividend-paying list.

An important mining property discovery is reported from Cumberland. At the Park Mines, Barrow-in-Furness, a new iron ore deposit has been revealed, after prospecting for some time past. The deposit is an extensive one, and analysis shows that the ore possesses 58 per cent. of metallic strength, with only 8 per cent. of insoluble residue or silica. The great advantage of the find is that the Barrow Steel Company, as owners of the mine, can secure deliveries of the very highest qualities of metal at their own works at Barrow, at about 8s. per ton, compared with 13s. 6d. per ton, which is the present value of Hodbarrow metal delivered. As nearly 2 tons of ore are required to make 1 ton of pig iron, this will give the Barrow Company an advantage in the market of about 10s. a ton. The Duke of Devonshire, who is the Chairman of the Barrow Steel Company, is the royalty-owner, and no higher royalty will be paid on this new ore than has been paid all along on the commoner ores now raised. Some millions of tons of ore have been raised out of Park Mine since it was discovered 40 years ago by the late Mr. H. W. Schneider, and the vein now found is of the best class of ore raised anywhere in the district.

THE MINING MARKET.

FRIDAY EVENING.

The Fortnightly Settlement and incomplete arrangements at the Clearing House disturb business.—Changes unimportant.—General tone good.

THE past week has witnessed a cessation of the vexatious interference of the Police with the evening dealings in Throgmorton Street, with the result that the crowd of loafers and pickpockets is nightly diminishing, and legitimate business between members of the Stock Exchange is resuming its pristine activity. Upon this result all parties concerned are to be congratulated. Brokers have now no need to charge double commissions for Street dealings, and the enterprising Insurance Agent has no longer a pretext for pestering members of the House to take out policies for insurance against loss of life and limb by accident. Almost as serious a drawback to business, however, as was threatened by external agencies has arisen in the defective working of the machinery within the House. Although the powers that be have been fully aware of the enormous proportions to which business in the mining section has attained, no adequate arrangements were made at the Clearing House to cope with the mass of transactions at the Settlement, which has been in progress during the week. The result was that on Wednesday there was a complete collapse in the passing of tickets, and the Official Broker was engaged nearly all Thursday in selling-out shares for which names were wanted. Various rumours were in circulation as to the actual extent of the breakdown. Some said that as many as 30,000 shares were sold out, heavy losses, of course, devolving upon brokers and upon the Clearing House, members of which will be assessed, whilst others, more fortunate, have been enabled to pick up cheap lines of stock. This pressure of sales for cash afforded a pretext to oversold operators to depress the market generally, and to this incident may be ascribed whatever weakness has been disclosed in the Kaffir Circus during a week which will be memorable for the volume of the business transacted.

On Saturday Land shares were buoyant under the lead of Chartered, and there was an appreciable rally in some of the higher-priced Gold shares which tempted capitalists at the lower level to which the realisations of the preceding few days had conducted. The Miscellaneous section was rampant, and a good deal of business was done in West Australians. The strong tone reported at the close of the week caused quite a rush of purchasers for the opening on Monday, but when the preliminary arrangement of the Account was well under way, it transpired that the bull account had grown so perceptibly during the fortnight that the more prudent hastened to reduce their commitments. Some of the weaker speculators for the rise found difficulty in carrying over, and to this cause a good deal of selling may be attributed. Continuation rates, however, were not exorbitant, 7 per cent. being about the average charge. The buoyancy of Land shares continued, and Gold shares fairly held their own. Westarians commanded increased attention, and the Miscellaneous market was crowded with eager buyers, many bears doing all they knew to scramble in. On Tuesday, the first day of the regular Settlement, the difficulty of continuation was accentuated, report stating that a considerable sum of money which had been available for taking in stock was diverted to other channels. Liquidation on this account caused a flat tone during the morning, but later on the market, all the better for the shake-out, perked up wonderfully, and the close was generally buoyant. Dealings in the Street were animated and prices closed at about the best. A large business was done in Westarians, and attention was turned to Indians, which had been neglected for some time. On Wednesday a strong opening, a noonday reaction, and a firm close were the features in all sections, though prices were talked up most persistently in the Miscellaneous corner, and the interest in Indians expanded. On Thursday the confusion in the Clearing House, to which we have alluded, brought about

some wild fluctuations, which however, can hardly be regarded as important, since they in no way indicate the natural current of the market. The close again was marked by a stronger tone than the bulk of the day's dealings. West Australians which were not influenced by this special cause, attracted a large business. A general rise was witnessed in Indians, and buoyancy characterised the dealings in many Miscellaneous shares. The opening this morning was flat, sales being pressed right and left for no very apparent reason, though a reference in the House of Commons to our relations with France was seized upon as a pretext for alarm. Buyers soon came to the support of the market, and the miniature panic being stayed dealers settled down to a quiet business, and the settlement of their outstanding accounts. Prices, however, sagged off during the afternoon, Africans, Westarians, and Indians generally closing at slight losses.

South African Mines.

On balance the changes in the greater number of the heavier gold shares are in the downward direction, though losses are nowhere important, bearing in mind the extent of the previous rise. Rand shares which stood at 29 on Monday, relapsed today to 27 and rallied to 27½. Modders have lost a point at 13½, Heriots ½ at 8s., City and Suburban ½ at 22½, Durban ½ at 7½, Ferreira ½ at 17½, Jumbers ½ at 5½, Knight's ½ at 5½, Langlaagte ½ at 4½, Van Ryn ½ at 5½, and Wemmers ½ at 8½.

It will be seen by the foregoing examples how trifling the depreciation has been, whilst, on the other hand, the medium-priced shares have generally made satisfactory headway. Block B have put on ½ at 22s., Champ D'Or Deep ½ at 17½, Chimes ½ at 3½, Eastleigh ½ at 2½, Glencairn ½ at 4½, Guy Fawkes 1s., at 14s., May Consolidated ½ at 3½, Rietfontein ½ at 3½, Spes Bona ½ at 2½, and Village Main Reef ½ at 6½. A big business has been done in Buffelsdoorn, which, starting at 5½ on Saturday, developed special strength on Tuesday, closing at 5½ bid. The shares were quoted on the Paris Bourse for the first time this week at prices well above parity. On Wednesday the shares were quite the feature of our market, being bid for in the Street up to 6½. There has since been a relapse to 5½, but a recovery is expected, and we hear good accounts of Langlaagte Royal, which have been wonderfully firm throughout the week, about 4½. Randfontein, quoted at 38s. 6d. a week ago, changed hands at 46s. on Monday, but have since relapsed to 41s. New Primroses have hardly moved all the week from 6½. Deep Levels have been well maintained, Consolidated standing at 4½, Gold Fields ½ better at 4½, Nigel ½ up at 2½, Nourse ½ better at 4½, and Roodepoort ½ up at 3½. We expect to see George and May advance from their present price 2½, and hear that a move is not unlikely in Luipaard's Vlei 1s. 6d. higher on the week at 21s., after touching 23s. 6d. Spitzkops have continued their erratic course, fluctuating between 11s. and 15s., and leaving off at 14s. Investors who can take these shares off the market are likely to see a good profit by-and-by. A spurt of ½ has carried Kaffir (Limited) to 17. Sutherlands are about ½ better at 26s. 6d., and there has been a strong rally in Shebas which after touching 31s. 6d. are 3s. 3d. higher on the week at 33s. Gold Coast Developments have been bought up to 6s. 6d., and are talked higher. Johannesburg Gold Fields, for which we had a good word last week, are 1s. 6d. higher at 6s. 6d. Graskops, quoted at 3s. 9d. a week ago, touched 7s. on Monday, but have since relapsed to 5s. 6d. An increased business has been done in Coetzestroom, which have advanced to 6s., and may be expected to further improve. A reintroduction into the market is Great Britain, which in its reconstructed form has commanded considerable attention up to 2½. Banks have also been bought on the prospects of reconstruction.

Land shares have monopolised a good deal of attention. Under the lead of Chartered and Bechuanaland, which, being promoted to the dignity of quotation in fractions instead of shillings and pence, went ahead like wildfire in the middle of the week. Chartered, starting at 2½, went right away to 3½ on Tuesday, whilst Bechs on the same day rattled up to 2½, as compared with 2, a week ago. The latest prices to-night are 3½ and 2½ x.d. respectively. Oceanas are in *status quo* at 3½, and such shares as Exploring at 5½, Mozambique at 27s. 6d., and Klerksdorp at 13s. 6d., have commanded their fair share of attention. Consolidated Gold Fields, which made up at 8½ on Monday, are back to 8½ to-night. Something of a sensation was caused by Gwelos, which dipped to 4s. 6d. on Thursday, on the publication of an adverse statement by the Chartered Company. Before the end of the day, however, the insiders had hoisted the price back to 12s. 3d. To-day the shares stand about 10s. Diamond shares have been good in tone. Jagers have been split into two, and at the price of 10½ for the divided share, ex a 20s. dividend, represent a gain of about 1½ on the old shares for the week. De Beers are ½ harder at 21½. Gordon Diamonds have nearly doubled in value at 7s. 6d.

West Australians.

A considerable business has been done throughout the week under the lead of Londonderry, which has commanded equal attention in Paris. A large block of vendor's shares was introduced upon the Paris Bourse on Saturday at the parity of the London price, and on Monday the quotation was cabled over at 50 francs, which is considerably above any dealing here. Our last price is 1½, a gain of ½ on the week. A new introduction to the market, South Londonderry, has attracted attention round 8s. Great Boulders have justified our prediction by advancing to 18s. 6d. Dealings have been active in Kinsella at 1½, Mainlands at ½ premium, and Explorations at ½ premium. Golconda is a shade below the best at 1½. Hampton Plains are ½ better at 1½, and Bayley's Reward unchanged at 10s. West Australian Gold Fields mark a rise of ½ at 3½ at 3½, and Pilbara are harder at 1½. Coolgardies are firm at 16s., and Sherr's slightly better at 10s. 9d. Murchisons have been bought up to 5s. 9d.

Miscellaneous Shares.

Hauraki which closed at 7s. 9d. a week ago, rose to 9s. 3d. on Saturday on a cable from the mine that announced the remittance of £10,000. On Wednesday evening these shares were taken in hand and run to 13s. on the strength of another telegram stating that there were 4700 ounces of gold in hand. This price has been maintained to-day.

Kapangans have sympathetically improved on the suggestion that there will be a bonus distribution of Hauraki shares. Waratah has attracted some attention between 8s. and 9s. 6d., but Waihi is a shade easier.

A remarkable rise has been established in Wentworth issues. The Ordinary, quoted a week ago at 17s. 6d., shot up on Wednesday day to 25s., the Priority at the same time mounting to 18s., as compared with 1½ on Friday night. Aladdin's are slightly better at ½ ex div. A crushing of 2400 ounces of gold from 343 tons of quartz speaks well for the value of the shares. Broken Hill Proprietary, upon which the customary monthly dividend of a shilling has been declared, have improved from 39s. to 40s. 6d. x.d., in sympathy with the higher value of silver, and British have been firm about 6s. 6d. The big move, however, has been in Australian Consols, which, starting

at 2s. 3d. on Saturday, moved from 4s. 6d. on Thursday to 2s. 31. buyers, reacting to 7s. An idea is gaining ground that the successful treating of the sulphides is now within measurable distance. St. John del Rey has attracted considerable attention. The price was 25s. on Saturday and 30s. on Wednesday. The movement has been on a House tip, which may or may not be worthy of notice. De Lamars have fluctuated between 27s. and 29s. Barma Rubys have reacted to 21s. 6d., last week's spurt not having been justified by intrinsic merit. The growing strength of Indians has been one of the features of the week. A report on the mines from Mr. E. Taylor is expected shortly, and further economies are promised accompanied by better results in the output. Nundydroogs have risen nearly ½ to 2½.

Mysore Reefs are half-a-crown up at 8s. 6d., allowing for a 6d. call, which makes the shares 17s. 6d. paid.

Goldfields of Mysore were a feature on Wednesday and Thursday, and show a gain of 5s. on the week at 23s.

Ooregum advanced from 2½ to 3½, but relapsed to 3½. The preference rose from 3½ to 3¾. Mysore from 2½ to 2½, after topping 3, and Champion Reef from 4½ to 4½.

Kabooongs have put on 1s. at 4s. 9d., and dealings were introduced to-day in the once notorious Emmas, which rose to 1s. 9d. Bonnie Dundee rose from 15s. 6d. to 18s., and should go better. Brilliants stand at 20s. ex a 7d. dividend and bonus. Carrington improved from 9s. to 12s. 3d., relapsing to 11s. Mill's Day Dawn is about ½ up at 28s. x.d.

Excellent returns have been obtained from Brilliant and St. George, which declares a 6d. dividend, and from Day Dawn Block, which reports 612 ounces from 970 tons crushed. These shares are slightly better at 11s. 6d. and are expected to improve. Indeed the whole of the Charters Towers group is worth the attention of speculative investors who appreciate a good dividend return.

Amongst copper shares there has been a good recovery in Rio Tintos, which are ½ better, at 12½, after being 13½. Masons are unchanged at 12½.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follow:—

CONSOLS, Wednesday, April 3, 1895.

STOCKS AND SHARES.

APRIL.

Tuesday, April 9	Wednesday, April 10
Thursday, April 25	Friday, April 26

Contango Days for South African Market are:—

Saturday, April 6	Monday, April 22
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ANSWERS TO CORRESPONDENTS.

Correspondents will please take note that all communications will be finally answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

REPLIES.

J. C. (Glasgow).—To answer your question as to the probable life of a mine with any sort of accuracy would require the special gifts of a seer. There is nothing to guide one to a general answer. As you put the case, it is like attempting to find the area of a triangle with only the length of one side as a guide.

J. P. (Belgium).—The capital of the Randfontein is two millions sterling, now quoted at a premium of say 100 per cent. In spite of this heavy capitalisation, a higher price is predicted. East Rands will probably go better eventually, but there has been such a jump already that the immediate future would seem to be fully discounted. The Zapopan Company was floated in 1889 to work a Mexican property, but the project was never carried out. At the end of last year, a North-West Australian property was acquired, and the £1 shares (250,000 in number) have figured prominently among the tape quotations about 8s. An outside firm has an unloading commission in vendors' shares of the Rothery Block, which are being sold at a discount—hardly a good sign. The South African Gold Trust represents an excellent permanent investment. Recent profits are said to have been enormous.

E. S. (Constantinople).—Langlaagte Royal is a Barnato stock, which has hitherto been comparatively neglected. We expect to see the price higher, and consider the shares worth buying. Shebas have had a good recovery, and may be held. Eastleighs will probably move with the rest of the list. There can be no harm in taking a profit.

SHELTON.—The prospects of the Trenton Mine was only published a fortnight ago. The issue was a success, but no "official" quotation on the Stock Exchange is likely to be granted.

J. M. (Glasgow).—We hear good accounts of Gold Coast Developments, and think you will see them higher. Whether or not you should take a profit at the price you name must depend on the temper of the market at the moment. Johannesburg Gold Fields have improved since we advised their purchase, but we expect to see them considerably better eventually. There would be no harm in taking a profit in each of the Industrial shares you name.

T. (Ipswich).—You are correct in your estimate of this Self-Advertising Agency. Its method is to sell unmarketable vendors' shares to unwary country folks.

SAVERNAKE.—United Pioneer is a new company, registered in November last, to acquire 71 claims on the Moodie Company's Estate in the De Kaap district. The shares are at a premium that would appear to discount immediate prospects, but in times of boom it is impossible to say what may be taken in hand and run up. We have a good opinion of Bonnie Dundee, and think them worth buying.

CALLOW.—We do not advise a purchase of Bayley's Reward. Day Dawn Blocks are worth buying for an advance in value, and Brilliants are still cheap. The dividend and bonus just declared amount to 7d. per share—the same rate as three months ago. In the meantime, two 4d. dividends have been paid. There is every prospect of these dividends being maintained, if not improved upon.

L. K. J.—Luipaard's Vlei are more likely to advance than recede in the present state of the market. We hear good accounts of the intrinsic merits of the property, and higher prices eventually may be regarded as practically certain.

NOVICE.—The Coetzestroom Company has a small capital—only £35,000—and we shall not be surprised to see the shares considerably better. Do not touch Kaffirs (Limited).

AFRIKAENDER.—It is rather late in the day to begin buying Kaffirs. On principle, it is wrong to go in on the top of a big rise. However, if you can take the shares off the market, we fancy that a purchase of Langlaagte Royal will give you a profit before long.

OLD INDIAN.—Champion Reefs are all right to hold, especially increased interest is now taken in this group.

E. A. M.—We are not greatly impressed with these shares. The Groydon Gold Field is not one of the best for uninspired venture.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

A LADDIN'S LAMP.—The following cablegram has been received from the mines:—"Four weeks' crushing: 343 tons of ore have been crushed, yielding 2400 ounces of gold. The stopes still hold good in the 500 feet level, and we have resumed sinking the Jackass shaft."

AFRICAN GOLD CONCESSIONS AND DEVELOPMENT.—The following cablegram has been received from the managing director in South Africa:—"First 25 cubic feet, 3 ounces." The board is unable to state whether the above refers to the richer portion of the alluvial cement or to that portion already assayed, and has telegraphed for further information.

BAKER'S CREEK.—Result of crushing for fortnight ended March 22, 645 ounces retorted gold.

BAYLEY'S REWARD CLAIM.—The head office cables:—"Will inform fortnightly output next week; afterwards fortnightly."

BAYLEY'S NO. 1 SOUTH.—The following cable has been received:—"Fortnight's run, 200 ounces, 170 tons."

BROKEN HILL CENTRAL.—Cablegram, dated Adelaide, the 28th inst.:—"Broken Hill Central have declared a dividend of 6d. per share, payable April 18."

BRILLIANT.—Crushing 1980 tons 2074 ounces. Dividend, 4d. per share. Bonus 3d.

BRILLIANT AND ST. GEORGE UNITED.—Crushed since February 2, 1793 tons of quartz for 2174 ounces of gold. Dividend declared of 6d. per share, payable 22nd inst. Approximate value of above return, £7400.

BUFFELSDOORN.—A telegram from Paris states that the shares will be quoted as from to-day on the Paris and Lyons Bourses.

BUFFELSDOORN.—The additional battery of 70 stamps on the Buffelsdoorn Estate, which was not expected to be at work until the beginning of next year, is now announced to be completed in the course of October next. The November production may be forecast at 10,000 ounces, as against the present monthly output of 5000 ounces. It is confidently expected that the White Reef Company, in which the Buffelsdoorn Estate holds a preponderating interest, will be milling with 60 stamps before the end of the year.

CARMEN ALTO.—The company has received a cablegram notifying that the erection of the concentrating machinery is completed. The mine reports continue favourable.

CARRINGTON.—The following cablegram has been received from the manager at Charters Towers:—"The Victoria. Have struck the ore body in crosscut on the Carrington side. I estimate the cost of sinking at £6 per foot. Expect to strike the vein at a distance of about 50 feet. May I sink? Success may be considered certain." In reply, the directors cabled as follows:—"Sinking the shaft sanctioned."

CITY AND SUBURBAN.—Cable:—"Have declared a dividend of 25 per cent payable to all shareholders registered on 29 March 1895." (The warrants for this dividend may be expected to arrive in Europe from the head office in Pietermaritzburg at the end of May.)

COROMANDEL.—The directors have received a telegram from the mine, dated 23rd March, as follows:—"Crosscut 500 feet north of Prospect shaft; have struck the lode; pieces of rock containing visible gold; width not yet determined."

DAY DAWN BLOCK AND WYNDHAM.—Result of the crushing for the fortnight ended the 23rd inst.:—Tons crushed 970, yield of gold 612 ounce, approximate value £2110, fortnight's expenses £1430.

DAY DAWN P.C.—The following cablegram has been received from the manager at Charters Towers, giving the result of the crushing for the fortnight ended March 23:—"No. 1 shaft, 32 tons, 17 ounces; No. 3 shaft, 161 tons, 200 ounces; tailings, 26 ounces; total, 243 ounces."

DON PEDRO.—The directors have received the following cablegram:—"Pump working satisfactorily. Water lowered 92 feet. Shaft in good condition."

ELKHORN.—Bullion produced in the mill for the week ended March 23, 9100 ounces.

GOLD ESTATES OF AUSTRALIA.—The following cablegram has been received in reference to the Friday reef, which is one of this company's claims at Menzies:—"The lode runs northerly; depth of shaft, 45 feet; width of lode, 2 feet 6 inches. Stone too rich to raise on account of being stolen. Work stopped until safe storage provided. Good supply of water. Have struck a rich orebody northern portion lease."

GWELO.—The following has been officially communicated by the British South Africa Company:—"The mining commissioner at Bulawayo reports as follows to the Gwele (Matabeleland) Exploration and Development Company (Limited), recently registered in Dublin with a capital of £250,000:—This company's grant consists of 100 claims, with very little development, and value very uncertain. Mr. J. E. Scott and Mr. Arthur M. Rhodes (whose names are mentioned by the company in its circulars and advertisements) have no connection with the flotation."

HAURAKI.—The directors have received the following telegram from the manager:—"The shaft has been sunk 4 feet. The ore which we are extracting is rich. We have in hand another 1000 ounces of gold. I have remitted £10,000."

HOLCOMB VALLEY.—A cablegram, dated 27th inst., from the manager, states:—"Have expressed specimen of gold (from) new gravel. Some of it pane \$32 per cubic yard; the average width is 40 feet; the average value is \$5. We cannot form any estimate of length at present."

JOHANNESBURG PIONEER.—Output for last month 1010 ounces of gold.

JULIA-TALTAL NITRATE.—The board have received a cable from the general manager of the company that the railway branch to the company's officina is now complete, and will be available for this company's traffic on April 6, and that he has 25,000 quintals of nitrate of soda ready to despatch to the port of Taltal.

KABOONGA.—The following cablegram has been received from the manager at the mine:—"Expect to begin washing not later than about the end of next week. A considerable amount of dead work has been necessary to open up."

KAPANGA.—The directors have received the following telegram from the manager:—"The crosscut has been driven 24 feet. The bore-hole has reached a depth of 100 feet."

KURNALPL.—The manager reports, under date of February 18, that he is sinking the main workings and water shaft as quickly as possible, and generally preparing for the receipt of the battery, which has now been constructed.

MACATE.—It is announced that, owing to the temporary interruption of the telegraph line to Callao, the expected cablegram with result of crushing is not yet to hand. In a letter, dated February 9, the manager writes:—"We have not the slightest trouble with the ropeway, and the mill is now in thorough good order."

MCCULLOCH COOLGARDIE.—The directors have received the following cablegram from Mr. W. J. Begelhole:—"I have

carefully examined the property, and am satisfied that good progress is being made. The workings show considerable improvement, and a most excellent return is certain."

MOSMAN.—A cablegram from the manager at Charters Towers states:—"Wyndham shaft. Have struck reef 20 inches thick. I estimate the quality at 1½ ounce per ton.—North Australian shaft. Have crushed 216 tons of quartz for 333 ounces of gold. The approximate value of the North Australian return is £1150."

MOUNT LEYSHON.—Fortnightly crushing 1700 tons, 252 ounces of gold, 40-stamp mill ran 12 days, profit £31.

MYSORE WEST AND MYSORE-WYNAAD CONSOLIDATED.—Tank Block. The representative of these companies telegraphs from India on the 22nd instant as follows:—"The ore recently struck averages 20 feet wide, driving north and south. There is an abundant supply of quartz for the present.—Mill. Estimated returns, 150 ounces of gold."

NERBUDDA COAL AND IRON.—The sales of coal for the month of February were 2160 tons.

NEW KLEINFONTEIN.—The Anglo-French Exploration Company (Limited), as London agents of the New Kleinfontein Company (Limited), have this day received advices by cable from Johannesburg to the following effect in reference to the amalgamation of the Deep Level claims and the increase of the capital:—"Meeting was very satisfactory. Amalgamation unanimously recommended. Close London register on 13th April, for right to subscribe for new issue. You are authorised to accept applications, and also payments, up to 20th April in the proportion of three shares for every 22, but one share for every eight, two for 16, under eight shares having no rights." Official note: In accordance with the above the transfer registers of the New Kleinfontein Company (Limited) will be closed from the 13th to 20th April prox., both days inclusive.

NEW ST. AUGUSTINE.—A cablegram from the mine states:—"1750 loads yielded 102 carats so far. Have secured further washing plant, which will take three weeks to erect."

NIGEL.—Cable:—"Have declared a dividend of 10 per cent, payable to all shareholders registered March 29." The warrants for this dividend may be expected to be in the hands of all shareholders resident in Europe at the end of May.

ORION.—Details of working for January: Tons milled, 5330; stamps working, 40; number of days mill ran, 30; yield from plates, 1571·95 ounces of gold. Tailings treated by cyanide, 3024 tons; yield of bullion from cyanide works, 1250·90 ounces. Net profit for month, £2891 18s. 2d.

PILBARA GOLD FIELDS.—The directors have received the following cablegrams from their manager, dated March 15:—"May. Crushed 90 tons, 453 ounces; shaft, 40 feet; rich stone underfoot reef roof.—Charley. Rich crushing: 94 tons crushed, 338 ounces.—Treasure. Crushed 53 tons, 94 ounces; shaft, 30 feet; reef showing along surface.—King. Big bodies ore crushed; 200 tons, 271 ounces; shaft, 30 feet; looking well.—Bonnie Doon. Shaft, 60 feet; reef, 30 inches; 50 feet levels stopped out; 200 tons crushed, 340 ounces; 1000 tons good backs in sight; good prospects.—Caledonia. 140 tons, 400 ounces."

QUEENSLAND SMELTING.—The manager cables:—"Have shipped per s.s. Duke of Argyll, bullion to the value of £14,600."

RIPANJI QUICKSILVER.—Mine manager telegraphs March 27 "Dressing machinery all going."

SAN SALVADOR SPANISH IRON ORE.—The s.s. Newcastle sailed from Santander on the 23rd instant with a cargo of this company's ore.

STAR OF THE EAST.—The manager cables:—"New boiler has already arrived on the property; expect to resume crushing any day."

SPRINGDALE.—The secretary cables, under date March 28:—"The mine manager reports to the directors: 'Shall commence crushing ore in the regular course April 1. Several mill tests have been made. You may thoroughly depend on not less than \$200 net daily profit all the year round, exclusive of Pine Creek.'"

TRENTON.—The following cablegram has been received:—"The entire length of the 100 feet level looking well.—200 feet level: The lodestuff consists of solid, well-mineralised stone; the gold is coarse, visible throughout stone for the whole width of the lode; all machinery good working order. From general outlook prospects are undoubtedly good."

VICTORY.—The London office has received the following cablegram from the head office in Sydney:—"Crushing for one week, 89 tons for 45 ounces of gold."

WEST AUSTRALIAN GOLD CONCESSIONS.—The directors have received a cable from their representative at Perth stating that:—"Mr. Liddell, who has hitherto been in charge of the Lady Hynes Mine, at Cue, belonging to the company, has been appointed as manager."

WESTERN AUSTRALIA.—A telegram, dated Perth, 25th March says:—"Abundant rain have fallen in most parts of the Murchison district. The clean-up at Bayley's No. 2 south is reported to be very satisfactory. The battery at the Emerald Mine is stopped for repairs. Another very rich find is reported from the vicinity of Mount Margaret, the prospectors having taken out 200 ounces of gold in a few minutes. The Golden Bar dry crushing and cyanide plant has been started. The Coolgardie Moordie Mine, 3 miles from the Londonderry, has been brought out as a local issue. The capital of £15,000 has been subscribed twice over. Mr. Nartti, a mining expert from South Africa, has secured options on several important mines in the Coolgardie district, and is returning at once to London. At the Caledonian Extended Mine, in the Murchison district, 17 tons of ore have been crushed for 318 ounces of gold. The Hon. Mr. Carnegie has made an important discovery near Lake Dariote; a big rush at once set in to the neighbourhood. The original prospector succeeded in dollying 2000 ounces of gold in eight weeks. The mines of the Great Boulder group are opening up well. The manager has established an important scheme for supplying this group of mines with water. The Mainland Consols, Golden Crown, Lady Mary, and Golconda Mines are opening up splendidly. Large quantities of machinery are constantly arriving for the mines, and the local mining share market is very strong."

FINLAND'S BOG IRON ORES.—An interesting paper on the subject of "Bog Iron Ores" was read at a recent meeting of the Helsingfors Chemical Union at Helsingfors, Finland. The author—Mr. Tigerstedt—stated that rich deposits of bog iron ore or limonite exist in East Finland, and are largely used in the ironworks in that district. The origin of limonite has not yet been fully disclosed from a geological point of view, but it is mainly found in districts where lime and sand, but not clay, form the principal constituents of the loose strata of earth. The author then gave the results of a number of analyses which have been made of the ores obtained, which show them to contain from 27 to 47 per cent. of iron. Manganese is often present in a large degree, as much as 20 per cent.

DEATH OF CAPTAIN JOHN EDWARDS.—It is with much regret that we announce the death, at Polgoon, St. Austell, on the 22nd inst., at the age of 69, of Captain John Edwards, a highly-respected mine agent, formerly identified with the management of the Great Tywarnhayle, Great Wheal Busy, Wheal Blencowe, and other mines in Cornwall, the Frontino and Bolivia in South America, the Fresnillo in Mexico, and the Sentein in the Pyrenees. The deceased was an efficient miner, and exceptionally skilful in the arrangement of engines and pumping appliances and mining machinery of any class.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, MARCH 29.

Copper.

THE speculative market opened quiet at unchanged values, £38 16s. 3d. being done for spot G.M.B.'s and £39 2s. 6d. for three months. The same day there was a slight improvement in values, and on Tuesday the firmer silver market reacted favourably on copper, which stiffened considerably, £39 1s. 3d. being paid for s.c. on Tuesday, and £39 5s. 3d. on Wednesday. The purchases of silver by China suddenly ceasing at this juncture, caused a relapse in that metal and also in copper which was dealt in at £39 2s. 6d. for s.c. on Wednesday and again on Thursday. Yesterday the market opened quiet at £39 1s. 3d. s.c., but improved to £39 3s. 9d. in the afternoon, and closed firm at £39 3s. 9d. to £39 5s. 3d. and £39 1s. 3d. to £39 12s. 6d. three months. Reduced sorts are less pressed for sale by America, and prices here are rather firmer, whilst consumptive demand is fairly good. Manufactured copper is quiet and unchanged.

Tin.

This article has been chiefly influenced by the movements in the silver market. The rise in the latter metal led to considerable purchases of tin in the first part of the week. 250 tons changed hands on Monday at £62 10s. up to £62 17s. 6d. s.c., and £63 7s. 6d. three months, a relapse to £62 13s. 9d. s.c. being followed on Tuesday by a fresh advance to £63 s.c., the turnover amounting to 320 tons. On Wednesday the market was very active, about 550 tons being done, whilst values rose to £62 10s. spot and £64 2s. 6d. forward, declining, however (with the reaction in silver), to £63 5s. and £63 15s. respectively. Yesterday the market was again lower but steady in tone, at £63 and £63 3s. 9d. s.c. and £63 12s. 6d. to £63 13s. 9d. three months. To-day the market was stiffer towards the close, and £63 5s. s.c. and £63 15s. three months were done. The final quotations are £63 5s. s.c. and £63 15s. three months, rather buyers. In the Dutch market there has been much less stir, and values have not followed so closely as usual the course of our markets. Billiton opened at fl 38½ s.c. and fl 38½ three months, and declined to fl 38 and fl 38½ respectively. On Wednesday, for a moment, there was a spurt to fl 38½ for May delivery, but the close is firmer at fl 38½ s.c. and fl 38½ three months, with Banca at fl 38½.

Pig Iron.

The shipments from Scotland last week were advised as 5428 tons, as against 5404 tons for the parallel period of last year. Values of Scotch rose during the earlier portion of the week, but, after touching 41s. 10d. s.c., there was a relapse, 41s. 8d. being done on Wednesday and again on Thursday. To-day's market was steady at 41s. 9d. to 41s. 8d., and the close is at 41s. 8d. s.c. buyers, and 41s. 9d. a month, whilst hematite and Middlesbrough close at 42s. 5d. and 41s. 2d. respectively.

Lead.

continues steady, but the business lacks animation. The closing values are firm at £9 18s. 9d. to £10 soft foreign, and £10 to £10 2s. 6d. English.

Spelter

is likewise steady, but in very quiet demand. The value at the close is £13 12s. 6d. to £13 15s. ordinary, and £13 15s. to £14 specials.

Antimony

is a somewhat dull market, with prices ruling steady at £31 to £31 10s.

Quicksilver

is dull, and seconds are easier at £6 8s. 6d. Firsts are unchanged at £6 10s.

The following are to-night's (March 29) prices of metals:—

	Copper.	£ a. d.	£ a. d.
Tough cake and Ingot	42 0 0	42 10 0	
Best selected	42 15 0	43 5 0	
Sheets and sheathing	43 0 0	50 0 0	
Flat bottoms	52 0 0	53 0 0	
Chill bars	39 3 8	39 12 6	
Good merchantable, spot, & 3 months respectively	39 3 8	39 12 6	
Copper tubes, seamless	—	0 0 0%	
	Alloys.		
BRASS: Wire	0	0 4%	
" Tubes (solid drawn)	0	0 0 5%	

"THE MINING JOURNAL" SHARE LIST.

INVITATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*dy.*, Antimony; *A.*, Arsenic; *B.*, Bleude; *Bz.*, Borax; *C.*, Copper; *D.*, Diamond; *G.*, Gold; *I.*, Iron; *L.*, Lead; *M.*, Manganese; *N.*, Nitrates; *P.*, Phosphates; *Q.*, Quicksilver; *R.*, Ruby; *S.*, Silver; *S-L.*, Silver-lead; *Sul.*, Sulphur; *T.*, Tin; and *Z.*, Zinc. * in the "called up" column of British Mines, signifies that the mine is conducted on "Cost Book" principles; *J.* in the "Head Office" column of African Mines, signifies that the address given is not that of the head office, but of a sub- or transfer office and *t.*, following the names of African mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and the Secretaries of Companies, Share dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct; we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name.	Closing Price, Mar. 29, 1895	Closing Price, Mar. 22, 1895	Par.	Latest Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued	Situation of Mine.	Head Office
Blue Hills ...CT	2/8	5/-	2/8	—	£ s. d.	5,353	Cornwall	Camborne.
Botallack ...T	—	—	—	—	5 12 6	5,353	Cornwall	St. Just.
Carn Fres ...T	13/4	2	15/	—	2/8 Dec., '94	22 8 5	6,000	Cornwall
Cook's Kitchen ...T	5/-	10/-	5/-	—	—	35 15 12	4,900	Cornwall
Devon Gwion C.A	par	3/4 p.m.	1 0	—	—	0 12 6	25,000	Near Tavistock
Devon Gt Cons.C.A	21/2	25/-	20	5	3/- Nov., '94	2 0 0	10,240	Devon
Doleath ...T	34	35	23/4	—	12/8 Apr., '94	9 12 6	4,700	Cornwall
Drakewalls CTM	—	—	—	—	—	0 2 0	61,856	Dashwood House.
East Halkyn ...	20/-	25/-	15/-	1 0	—	0 12 6	12,000	Finstshire....
East Pool ...AT	4 1/2	5	4 1/2	—	1/8 Sept., '94	0 9 9	6,400	Lord St., Liverpl.
Gawton ...C.A	—	—	2 10	—	—	2 7 3	12,000	Devon
Great Laxey ...L	13/4	2	1 1/2	4 0	5/- Apr., '94	4 0 0	15,000	Isle of Man
Green Hurth ...L	1 1/2	—	1/8	1 0	—	0 12 0	32,000	Cumberland...
Halkyn ...L	3	10	8	1 0	—	1 0 0	10,000	Finstshire....
Do. Dis. Min. Drain	8 1/2	10%	8 1/2	10	4/- Mar., '95	10 0 0	3,000	Finstshire....
Isle of Man ...L	3 1/2	4 1/2	—	—	—	—	—	Chester.
Killifirth ...T	7/8	12 1/2	10 1/2	—	1/8 Dec., '94	5 0 0	14,000	Isle of Man ..
Leadhills ...L	15/-	20/-	15/-	6 0	3/- Sep., '92	6 0 0	20,000	Cornwall
Llanarmon ...	par	par	par	1 0	—	1 0 0	21,990	Lanarkshire...
Llanarmon ...	par	par	par	1 0	—	3,790	Denbighshire...	
Levant ...CT	4 1/2	5	4 1/2	—	4/- Nov., '94	11 9 6	2,500	Finstshire....
Lovell ...T	—	—	—	1/3 Nov., '91	1 16 7	7,185	Wendron ...	
Miners ...L	—	—	5 0	—	5/5 Mar., '90	5 0 0	9,000	Northumberld.
Westhwaite ...LZ	3/8	3/8	1 1/2	6 0	2/8 Feb., '91	0 18 0	48,3 5	Northumberld.
NewCookaKint. TC	—	—	—	—	—	10 18 3	4,900	Cornwall
New Minera ...	—	—	1 0	1/ Oct., '92	1 0 0	30,000	Cornwall	
North Hendre ...	7 1/2	7 1/2	2 10	8 p.c year	2 10 0	11,854	North Wales...	
Parc ...LZ	—	—	—	—	—	5,030	Plinstshire....	
Phenix United TC	1/8	2/-	1/8	—	1/- Mar., '90	7 4 6	10,666	Queensland...
Polberro ...T	17/6	22/8	10/-	—	—	3 7 9	18,000	Cornwall
Rhosemor ...L	par	par	par	1 0	10 p.c Sept., '91	1 0 0	1,030	Cornwall
Ro. Conduffor ...TC	2/6	7/8	2/6	—	3/6 Apr., '93	7 17 6	6,123	Finstshire....
South Crofty ...T	2/6	7/6	2/6	—	—	17 7 6	6,120	Cornwall
South Frances Untd. T	2/6	7/6	2/6	—	—	2 7 6	6,000	Cornwall
South Halkyn ...	par	par	par	1 0	—	1 0 0	10,000	Finstshire....
Talacre ...	par	par	par	1 0	—	0 15 0	20,000	Cornwall
Trecroft ...T	4 1/2	5	4 1/2	—	2/- Aug., '94	15 7 8	6,000	Cornwall
Weardale ...L	8/9	8/9	4 0	1/3 Oct., '90	1 10 0	50,000	Durham....	
West Frances ...T	2/6	7/6	2/6	—	2/6 May., '95	16 4 7	5,144	Cornwall
West Kitty ...T	4 1/2	5 1/2	4 1/2	—	2/- Dec., '94	1 2 0	6,000	Cornwall
Wheel Agar ...T	2/6	7/8	3/6	—	2/6 Aug., '98	23 15 2	6,000	Cornwall
Wheel Bassett ...TC	5/-	10/-	5/-	—	10/- Apr., '98	12 3 0	6,184	Cornwall
Wheel Friendly ...T	-	1/-	-	—	—	0 12 9	10,000	Cornwall
Wheel Grenville ...T	8 1/2	9	9	—	2/8 Nov., '94	18 2 0	6,000	Cornwall
Wheel Kitty ...T	1/-	3/-	1/-	—	3/- Mar., '98	4 5 6	8,580	Cornwall
Wheel Metal & F.T	1/-	1/8	1/-	—	—	0 13 9	10,784	Cornwall

AUSTRALIAN AND NEW ZEALAND MINES.

Abbots ...G	10/-	15/-	10/-	1 0	—	9 17 6	87,000	Murchison ...
Achilles Gid Flt.	3/3	2/9	3/2	1 0	—	1 0 0	80,307	New Zealand ..
Aladdine Lamp ...G	25/-	27/6	18/9	1 0	1/- Mar., '95	1 0 0	100,000	N. S. Wales ...
Assoc. Gold Miners	17/6	20/-	18/9	1 0	—	—	375,000	Coolgardie ...
Austin ...G	22/6	25/-	22/6	1 0	—	1 0 0	50,000	W. Australia ...
Australian ...G	4/6	5/-	4/6	1 0	—	1 0 0	210,000	Queensland ...
Australian ...C	—	—	20	1/6 July, '94	7 7 8	18,315	S. Australia ...	
Aus. Bro. Hill Com. ...G	5/8	6/-	2/	1 0	1/- June, '91	1 0 0	57,138	N. S. Wales ...
aker's Creek ...G	17/6	22/8	17/8	1 0	1/- Feb., '94	0 17 6	12,000	N. S. Wales ...
asley's Reward ...G	9/6	13/6	9/6	1 0	—	1 0 0	480,000	Hillgrove, N. S. Wales
ig Blow ...G	14/6	15/8	14/8	1 0	—	0 15 0	120,000	W. Australia ...
Blackett's Claim ...G	12/8	12/8	8/9	—	—	1 0 0	60,000	W. Australia ...
Blue Spur & G. G.	1/8	1/8	1/8	—	—	1 0 0	80,098	New Zealand ...
Bonnie Dundee ...G	19/	20/	19/	—	—	0 15 8	120,000	Queensland ...
Brilliant ...G	19/	20/	19/	—	—	0 15 8	250,000	Queensland ...
Brilliant Black ...G	12/4	15/4	12/4	—	—	0 15 8	250,000	Queensland ...
Brilliant St. Geo. ...G	12/4	15/4	12/4	—	6d. Apr., '93	0 15 3	72,000	Queensland ...
Brit. Brook Hill ...G	5/8	7/6	5/8	—	—	5 0 0	240,000	N. S. Wales ...
Brokers Hill Prop. ...G	12/4	21/8	12/4	—	1/- Apr., '95	0 8 0	980,000	Dashwood Ho., E.O.
Cashman Brill ...G	10/8	12/8	10/8	1 0	—	1 0 0	60,000	Coolgardie ...
Carrington ...G	10/8	11/6	8/9	12/8	—	1 0 0	160,074	Queensland ...
Con. G. M. of W. A.	par	1/4 p.m.	pr. 1/4 dis.	1 0	—	1 0 0	90,000	W. Australia ...
Coolgardie ...G	-	1/6	1/9	—	—	0 2 0	40,000	Coolgardie ...
Coolgardie (Shrubs) ...G	15/-	16/	15/8	1 0	—	0 6 3	—	Coolgardie ...
Craven's Cal. ...G	3/6	4/6	3/6	—	—	0 10 0	100,000	Queensland ...
Crown Bayley's ...G	1/4	1/4	1/4	—	—	0 10 0	81,000	Queensland ...
Croydon King B. G.	3/0	5/-	3/0	—	—	0 5 0	60,000	Queensland ...
Cumbrian (New) G	3/-	5/8	4/6	1 0	2/8 Dec., '97	0 18 6	124,590	N. S. Wales ...
Day Dawn B.W.G	11/	12/-	11/6	1 0	—	—	498,400	Queensland ...
Day Dawn P. C. G	5/3	5/9	4/6	1 0	—	—	490,000	Queensland ...
Eaglehawk ...G	1/6	2/-	1/	1 0	—	0 19 9	120,000	Victoria ...
Empress Coogee ...G	3/4	5/4 dis.	3/4	2 0	2 1/2	0 10 0	90,000	Victoria ...
Eng. & Aus. Cop. Cu	3/4	5/4	3/4	2 0	2 1/2	0 17 8	70,000	Ho. Australia ...
Etheridge ...G	—	—	—	0 5 3	—	0 5 0	324,780	Queensland ...
Frederick the Gt G	—	—	—	1 0	—	1 0 0	125,000	Victoria ...
Glenrock ...G	1/8	1/3	/9	1 0	—	1 0 0	225,000	N. Zealand ...
Golconde ...G	21/3	23/9	20/-	1 0	—	1 0 0	68,086	Murchison ...N.W.
Gold Estates ...G	1/4	1/5	1/5	1 0	—	1 0 0	30,000	W. Australia ...
Great Boulder ...G	17/6	18/6	14/-	1 0	—	1 0 0	119,280	Gresham-st. E.O.
Great Coolgardie ...G	5/8	5/8	5/8	1 0	—	0 15 0	80,000	Coolgardie ...
Great Fingall Rls. ...G	2/4	2/4	2/4	2 0	20 p.c. Dec., '94	1 0 0	100,000	Kurnalp WA
Golden Gate ...G	4/-	5/-	5/1	1/2	—</			

"THE MINING JOURNAL" SHARE LIST—(C continued).

SOUTH AND CENTRAL AMERICAN MINES—(Continued).

Name.	Closing Price, Mar. 29, 1895	Closing Price, Mar. 22, 1895	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Muanchaca	—	—	£ s. d.	—	£ s. d.	320,000	Bolivia	10, Avnu. d'Alma, Paris
Navall	G 1/8 1/8	—	5 0	4/- Sept. '94	0 2 0	105,234	Nicaragua	139, Cannon-street.
Julia Taital	N 1/2 1/2	—	1 0	—	1 0 0	250,000	Chili	79%, Gracechurch-st.
Magunas	A 5/4 6/4	5/4	5 0	15 p.c. Dec. '94	5 0 0	120,000	Tarapaca	3, Gracechurch st.
Lancharo	N 7/4 8/4	3/4	5 0	7/6 Dec. '94	5 0 0	27,000	Chili	75, Gracechurch st.
Liverpool	N 11 12	11	5 0	10 p.c. Dec. '94	5 0 0	300,000	Chili	Liverpool.
Esoa	G 8/4 1/4	7/4	1 0	—	—	—	Colombia	5, Cophthal-building.
London Nit.	N 1/4 2/4	1/4	5 0	3/4 Nov. '94	5 0 0	10,000	Chili	9, Gracechurch-st.
London Nit. (Frat.)	G 4 4/4	4	5 0	5/2 Nov. '94	5 0 0	24,000	Chili	9, Gracechurch-st.
Macete	3/3 3/3	3/-	0 2	—	0 2 0	200,000	Peru	11, Old Broad-st, E.C.
New Tamarugal N	3/4 3/4	3/4	1 10	1s. Dec. '94	1 10 0	130,000	Tarapaca	50, Lima-street, E.C.
Do. 8% Com Dobs	1/2 1/4	1/4	8 p.c. Feb. '95	1 10 0	130,000	Tarapaca	50, Lima-street, E.C.	
Do. 8 p.c. Dobs	85 92	88	100 0	150 0	260,000	Tarapaca	50, Lima-street, E.C.	
Oriza	G 1/1 1/8	1/8	1 0	1/- April '95	1 0 0	30,000	Colombia	10, Blomfield-street.
Quico Preto	G —	—	1 0	—	1 0 0	80,000	Brazil	6, Queen-street-place.
San & Jaspampa N	4 4/4	4/4	5 0	5/— Aug. '94	5 0 0	72,000	Tarapaca	3, Gracechurch-st.
Primitiva	N 1/4 2/4	1/4	5 0	20/— Oct. '94	5 0 0	40,000	Chili	Liverpool.
Quibraida	C 3/— 5/—	3/—	3 0	5/2 Mar. '94	3 0 0	241,958	Venezuela	38, Nicholas Lane.
Quibrech	C —	—	5 0	6/2 Feb. '94	100 0	240,000	Venezuela	38, Nicholas Lane.
Rosario (5% Deb.)	N 5 5/4	5/4	5 0	7/6 Feb. '95	5 0 0	120,000	Chili	57/4, Old Broad-street.
St. John del Rey G	27/— 28/—	25/—	1 0	10/2 June '92	1 0 0	323,780	Brasil	Finby Ho., Bim'l'd at
San Donato	N 2/4 2/4	2/4	5 0	—	5 0 0	34,000	Chili	12, King-st., Liverp.
San Jorge	N 5/4 6/4	5/4	5 0	7/8 Sept. '94	5 0 0	75,000	Chili	9, Gracechurch-st.
San Pablo	N 2/4 2/4	2/4	5 0	5/2 Nov. '94	5 0 0	32,000	Chili	Gracechurch-st.
Santa Barbara	G —	—	C 10	1/3 Dec. '94	10 10 0	80,000	Brazil	57/4, Old Broad-street.
Santa Elena	N 5/4 5/4	5/4	5 0	5/— Oct. '94	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
Santa Rita	N 4 4/4	4	5 0	15/2 Apr. '94	5 0 0	20,000	Chili	Dashwood House, E.C.
San Sebastian	N 3/4 2/4	2/4	5 0	5/2 Dec. '94	5 0 0	29,000	Chili	Dashwood House, E.C.
Segovia	G —	—	1 0	10/2 Dec. '94	1 0 0	160,000	Colombia	5, Cophthal-building.
Sierra Preff.	G —	—	1 0	5/2 Dec. '94	1 0 0	10,000	Colombia	23, St. Swithin's-in.
Sinco Ord.	G —	—	1 0	—	1 0 0	—	Colombia	23, St. Swithin's-in.
Sitman	G —	—	1 0	—	0 19 6	200,000	Colombia	5, Cophthal-buildings.
Solima "A"	S 2/4 1/4 ad	5/4	5 0	10/— Dec. '94	5 0 0	14,000	Colombia	18, Finsbury-circus.
Do. "B"	S 6 6/4 ad	6	5 0	10/— Dec. '94	5 0 0	6,000	Colombia	18, Finsbury-circus.
Vic. El Altamira	2/9 3/3	2/—	0 5	—	0 5 0	200,000	Venezuela	Broad-st. Avenue.
West Indian	G —	—	0 15	—	0 5 0	700,000	San Domingo	49, Queen Victoria-st.
Marina	G —	—	0 5	—	0 5 0	281,422	Ecuador	1, Gt. Winchester-st.

AFRICAN MINES.

African Coal	7/5 8/—	7/3	1 0	—	0 16 6	320,000	Middleburg	19, St. Swithin's-lane
African Gold	4/— 5/—	4/—	0 10	20 p.c. Jan. '95	0 8 0	300,000	Mossel Bay	16, Tokenhouse-yard
Afrikander	N 1/4 1/4	1/4	1 0	—	1 0 0	40,000	Transvaal	19, St. Swithin's-lane
Agnes Stock	G 13/2 16/3	13/3	1 0	—	1 0 0	75,507	Transvaal	34, Old Broad-street.
Alexandra Estate	G 9/— 10/—	7/—	1 0	—	1 0 0	225,000	Witwatersrd.	Warfordsrd.
Anglo-French Exp	2/4 2/4	2/4	5 0	10/2 Dec. '94	5 0 0	38,000	Do. Kasp.	17/2, Winchster Ho.
Appleton	G 20/— 22/—	22/—	1 0	8% Mar. '93	1 0 0	65,000	West Coast	5, Old Jewry.
Aurora	G 20/— 22/—	22/—	1 0	8% Mar. '93	1 0 0	—	Witwatersrd.	5, Old Jewry.
Balkis Horsting G	4/— 4/8	2/8	0 10	—	0 10 0	520,000	Transvaal	5, Gracechurch-st.
Balkis Land	N 5/— 5/—	4/—	0 10	—	0 10 0	520,000	Transvaal	5, Gracechurch-st.
Bantok	G 11/— 12/—	6/8	1 0	—	1 0 0	200,000	Witwatersrd.	19, St. Swithin's-lane
Bantjies Reef	G 3/4 3/4	3/4	1 0	—	1 0 0	85,000	Transvaal	34, Old Broad-street.
Baron	G 10/— 11/—	9/5	0 10	—	0 9 0	107,495	Do. Kasp.	17, Basinghall-street
Barromansland Exp	2/4 2/4	15/4	1 0	1/— Mar. '95	0 0 0	200,000	Bechuanaland	9, St. Swithin's-lane
Big Golden Quarry	1/9 2/3	1/6	5/—	—	0 5 0	482,226	Kasp River	4, Bishopsgate st. W.
Block "B" Lang.	22/— 23/—	21/—	1 0	—	1 0 0	55,000	Transvaal	8, Old Jewry.
Booneen Land	G 2/4 2/4	2	1 0	—	1 0 0	98,000	Transvaal	8, Old Jewry.
Brit. S. A. Char.	N 3/4 3/4	5/4	1 0	—	1 0 0	2,000,000	Do. Kasp.	19, St. Swithin's-lane
Buffelsdoorn	G 5/4 5/4	5/4	1 0	—	1 0 0	250,000	Potchefstrom	7, Lutbury.
Bulawayo Synd.	S 4/4 4/4	4/4	1 0	—	1 0 0	12,000	Matabeleland	10, Helen's Place.
Gap asbestos	2/4 2/4	2/4	1 0	—	1 0 0	60,311	Orange River	17, St. Swithin's-lane
Gap Copper	C 13/4 14/4	13/4	2 0	1/2 Dec. '94	2 0 0	300,000	Orange Colny	9, Queen-street-place.
Do. 6% Pref.	C 2/2 2/2	2/2	2 0	1/2 Dec. '94	2 0 0	45,000	Transvaal	9, Queen-street-place.
Cassell Colliery	S 3/4 4/4	3/4	2 0	1/2 Dec. '94	2 0 0	78,000	Transvaal	9, Queen-street-place.
Can. Mauritius	G 1/— 1/—	1/—	1 0	—	1 0 0	89,000	Transvaal	9, Queen-street-place.
Champ d'Or	G 4/4 4/4	4/4	1 0	4/— Jan. '95	1 0 0	116,016	Witwatersrd.	15, George st. M.H.O.
Champ d'Or Deep	G 25/6 36/6	35/6	1 0	—	1 0 0	117,499	Witwatersrd.	17/2, Warfordsrd.
City and Suburb.	G 23/4 24/4	23/4	1 0	—	1 0 0	25,000	Do. Kasp.	1, Crosby Square, I.
Coastestroom	G 5/— 6/—	3/8	0 5	—	0 5 0	140,000	Do. Kasp.	105, Leadenhall-street
Con. Bottsfeld	G 20/— 22/—	22/—	1 0	3/4 7 Sept. '94	1 0 0	721,500	Transvaal	4, Bishopsgate st. W.
Con. Deep Level	G 4/— 5/—	4/—	1 0	4/— June '94	1 0 0	187,250	Transvaal	8, Old Jewry.
Con. G. Fields & A	S 84/4 85/4	85/4	1 0	15/2 Nov. '94	1 0 0	1,245,999	Transvaal	8, Old Jewry.
Do. 5% Pref.	S 21/— 22/—	20/8	1 0	—	1 0 0	670,000	Transvaal	8, Old Jewry.
Do. 5% Deb.	S 108/4 109/4	108/4	1 0	2/4 2 Oct. '94	5 0 0	82,000	Witwatersrd.	108/4, Bim'l'd at
Crown Deep	S 27/— 31/—	30/4	1 0	5/— Jan. '95	1 0 0	250,000	Transvaal	108/4, Bim'l'd at
Crown Mett	G 10/— 10/—	10/—	1 0	25/2 Nov. '94	1 0 0	120,000	Witwatersrd.	108/4, Bim'l'd at
De Beers Consol.	D 21 21/4	20/6	5 0	12/8 Jan. '95	5 0 0	789,791	Transvaal	19, St. Swithin's-lane
Do. 5% 1st Deb.	D 107/4 108/4	108/4	100 0	5/4 2 Jan. '95	5 0 0	23,500,000	Transvaal	19, St. Swithin's-lane
Do. 5% Bim'l'd	D 107/4 108/4	107/4	100 0	5/4 2 Oct. '94	5 0 0	2720,100	Transvaal	19, St. Swithin's-lane
Durban Roedopt.	G 7/4 7/4	7/4	1 0	3/— Mar. '95	1 0 0	6125,000	Witwatersrd.	20/2, Bishopsgate st. W.
Eastleigh	G 23/4 23/4	23/4	1 0	—	1 0 0	240,000	Klerksdorp	19, St. Swithin's-lane
East Rand	G 37/4 37/4	37/4	1 0	—	1 0 0	870,000	Witwatersrd.	19, St. Swithin's-lane
Evelyn	G 13/4 13/4	13/4	1 0	10/2 Jan. '95	1 0 0	86,000	Transvaal	19, St. Swithin's

saw prices upheld, notwithstanding the so near approach of the settlement. Home rails, but little doing, but figures stood well, and Brighton A and Metropolitan Districts marked fractional advances. Americans eased slightly; Canadians, however, were unchanged, and Mexicans the turn better. On Monday business was seriously interfered with by the lack of telegraphic communication, and, therefore, little was done and prices neglected, as they could not be tested with other markets. Tuesday brought in some little ease for home rails, especially amongst the "heavy" lines. Both Americans and Canadians were in demand, and higher prices were established all round. Yesterday's traffic announcements, though almost without exception decreases (and, in many cases, large decreases) did not hurt home rails, for—these notwithstanding—prices improved. Americans and Canadians, however, were a little bit off previous rates. Mexican Rails came into favour, particularly the First pref., which marked a sharp and substantial rise. Nothing of moment in this morning's opening as compared with close last evening. What few changes there were showed small and irregular.

BANKS.—Very little doing, save in Manchester and Salfords. Manchester and County are $\frac{1}{2}$ down, but National Provincial are $\frac{1}{4}$, Imperial of Persia $\frac{1}{2}$, and Imperial Ottoman $\frac{1}{2}$ up.

INSURANCE.—Hardly any business reported; indeed, nothing but some straggling markings in Lancashires and Palatinates.—Higher: Sea, $\frac{1}{2}$; British and Foreign Marine $\frac{1}{2}$, and London and Lancashire $\frac{1}{2}$.—Lower: Liverpool, London, and Globe $\frac{1}{2}$; Royal $\frac{1}{2}$; Manchester Fire $\frac{1}{2}$, and Imperial Marine 1-16.

COAL, IRON, &c.—Nothing going on here, except a few Bolckow lots and Ebbw Vale.—Higher: Howard and Bulloch ordinary $\frac{1}{2}$, and Tredegar A $\frac{1}{2}$.—Lower: Hetherington's ordinary $\frac{1}{2}$, ditto preference $\frac{1}{2}$, and Whitworths $\frac{1}{2}$ to 8.

MINES.—Only Chartered and Dariens moving of those quoted here; but dealings in "united" shares have been again very numerous. Regarding these last movements in prices have, of course, been ruled from other markets, and the changes are somewhat irregular.—Higher: Chartered 11-16, Darien A 3-16, and Burma Ruby $\frac{1}{2}$.

COTTON SPINNING, &c., still dull, but prices do not undergo much alteration.

BREWERS.—Higher: Bent's $\frac{1}{2}$, Taylor's $\frac{1}{2}$.—Lower: Manchester $\frac{1}{2}$, and Parker's $\frac{1}{2}$.

MISCELLANEOUS.—Business quiet. Canals have been done repeatedly, but not so much as of late. The ordinary are 1-16 down, and preference unaltered.—Higher: Sues Canal 1, Hudson's Bay $\frac{1}{2}$; Bell's Asbestos $\frac{1}{2}$, Manchester Carriage B $\frac{1}{2}$, ditto C $\frac{1}{2}$, Bryant and May $\frac{1}{2}$, and Northern Assets 1s.—Lower: Brunner, Mond $\frac{1}{2}$, Coats $\frac{1}{2}$, Cunard Steam $\frac{1}{2}$, Chadwick's $\frac{1}{2}$ to $\frac{1}{2}$, West India and Pacific Steam $\frac{1}{2}$, and National Telephones Third Preference 1-16 to $\frac{1}{2}$.

LATER (4 P.M.).—A very quiet day all round. No changes worth naming in home rails. Americans, notwithstanding New York lower prices, held up well, sellers not being pressing. In Canadians, Trunks were enquired for. Mexicans fell away somewhat from yesterday's prices.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (March 28) writes:—During the past week business has been restricted by the intervening fortnightly settlement, and a breakdown in the telegraphic communication caused by a storm, but, notwithstanding, a very large business has been put through in Kaffirs and land shares. If the Board of Trade Returns for this month are more encouraging, the activity might spread to more departments of the market.

In shares of coal, iron, and steel companies prices are steady. African Coal are at 7s. 3d., Marbella 42s., Niddrie and Benhar 45s., and Steel Company of Scotland 36s. Sydney Harbour Collieries, par to 5s. prem.

In shares of copper concerns a moderate business doing. Tharsis improved from 89s. 6d. to 93s., and are now 91s. 9d. The dividend for last year of 4s., or 10 per cent., is considered satisfactory. The rate for the previous year was 12 $\frac{1}{2}$ per cent. Arizona have declined to 12s. 9d. There is a proposal to reconstruct this company's board of directors, which it is thought would benefit the concern. Cape are at 27s. 6d. to 30s. Tinto declined from 13 $\frac{1}{2}$ to 12 13-16. Killifret Tin, 9s. 6d. to 10s. 6d.

In shares of gold and silver mines a large business continues to be done. The feature of the week has been the demand for Indian mines, particularly Champion, Mysore, Nundydroog, and Oregum. The Mysore meeting will be on April 2, and that of Nundydroog on April 3. The latter mine has now large reserves of ore, and the stamps are to be increased by 30. Gold Fields of Mysore is about to commence crushing. A large number of South African gold and land shares have been sold this week to realise profits. The market has absorbed them without much decline, which is an encouraging feature. It is also said that French investors are beginning to take West Australian mining shares. The dealings in Chartered shares have been very large, from 54s. up to 68s. 3d., now 65s. 9d. It is said a favourable account of the company's position will soon be issued. Among the cheap land shares La Plata seem worth attention, as something good may come out of their properties in the Guy Fawkes and neighbouring districts. Broken Hill declined to 38s. 9d., but have recovered to 40s. on the March dividend, and the April dividend is announced at 1s. per share. Montana have been sold from 12s. 4d. to 11s. 6d., and their dividend announced at 3d. East Sheba Reef and Zwartland Transvaal wanted. African Land, 3s. 6d.; Big Blow, 16s. 3d.; Buffelsdorp, 5 15 16; Block B, 23s.; Big Golder Quarry, 2s.; British Broken Hill, 6s.; Balkia Land, 5s. 6d.; Charters Towers, 5s. 9d.; Cassel, 14s. 9d.; Consolidated Gold Fields, 9s. 16s.; Crosses, 62s. 6d.; Coetzeestroom, 5s. 3d.; Coatal, 1s. 9d.; Carrington, 11s. 6d.; Day Dawn Block, 11s. 3d.; De Lumar, 29s.; East Rand, 75s.; Eastleigh, 47s. 6d.; Frank Johnson, 20s. 6d.; Great Boulder, 15s.; Glencairn, 88s. 9d.; Gwalo, 10s. 3d.; Gravel, 4s. 3d.; Graskop, 5s. 9d.; Holecomb Valley, 3s. 9d.; Haaraki, 11s.; Idaho, 4s.; Johannesburg Investment, 70s.; Kabonga, 4s.; Klerksdorp, 14s. 6d.; Lisbon, 4s. 3d.; Londonderry, 34s.; Lower Roodepoort, 6s. 6d.; Lipaard's Vlei, 23s. 6d.; Mosman, 5s. 6d.; May, 73s. 9d.; Mallina, 20s.; Main Reef, 28s.; Mozambique, 28s. 6d.; North Sheba, 14s. 6d.; New Queen, 8s. 3d.; Ocean, 66s. 3d.; Otto's Kopje, 6s. 3d.; Orion, 70s.; Primrose, 60s.; Paarl Central, 32s. 6d.; Roodepoort Deep, 63s. 9d.; Randfontein, 42s. 6d.; Sheba, 34s. 3d.; Sheba Queen, 8s. 9d.; Spur Bon, 47s. 6d.; St. Augustine, 8s. 3d.; Victoria and Altamira, 3s.; Wolbuter, 7s.; West Australian Gold Fields, 71s. 3d.; Willoughby Consols, 36s.; West Argentine, 1s. 9d.; Zambesia Exploring, 90s.; and Zapapan, 8s. 3d.

In shares of miscellaneous companies business is quiet. In oil companies Broxburn are at 9s. Pempherton 7s. and Young's 36s. 6d. Lawes Chemical are at 7s. Nobel's Explosives 15s. Price's Candle 30s. Roburite 27s. 6d. to 32s. 6d. Spiers' Petroleum, 10s. and White Leads 2s. 6d. to 3s.

EDINBURGH.

Messrs. THOMAS MILLER AND SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of March 28: Railway stocks during the past week have remained firm, but quiet; and an improvement has taken place in several. Secured investment stock have in some cases advanced, but the amount of business doing in them is limited. Bank shares only slightly changed. Commercial have improved from 66s. to 67s. Royal have declined from 22s. to 22s. Insurance shares quiet. Liverpool, London and Globe have declined from 48s. to 48s. North British and Mercantile have risen from 38 7-16 to 38s. Northern have receded from 69s. to 69s. Scottish Union and National A have improved from 88s. 6d. to 90s. 6d. London and Lancashire from 17s. to 17s. 16. British South Africa shares have risen from 53s. to 65s. Coal shares firm. A considerable business has been done in shares of mining companies many of which are unquoted. Broxburn Oil have risen from 9s. 16s. to 9s. 16s. Young's from 34s. 3d. to 36s. 3d. Distillers 6s. 3d. higher at 18s.

REPORTS FROM THE MINES.

BRITISH MINES.

DEVON GREAT CONSOLS.—William Cleme, March 28: Watson's engine shaft. In the 172 fathom level east, the lode is 4 feet wide, and is producing a little copper and manganic ore. In the 148 fathom level east, the lode continues promising, and is yielding 4 tons of copper and manganic ores per fathom. All other points of operation are without alteration since the directors visit on 22nd instant.

LEADHILLS.—W. H. Paull, March 25:—Brown's vein. Since date of last report all operations have been going on continually, and fair progress made in the several departments. Brown's vein at the 160 fathom level north of Jeffrey's shaft has recently varied much in produce, yielding 10 to 20 cwt. of ore per fathom, and at some points without any ore. In the forebay it is valued at 10 cwt. per fathom, and an improvement is expected. In the same level south of Wilson's shaft the vein continues unproductive, but the end is damp to-day. The stopes over this level south of Jeffrey's shaft is worth 25 cwt. of ore per fathom. The three stopes over the 145 fathom level north of Jeffrey's shaft are producing 25 cwt. of ore per fathom. The vein in the 115 fathom level south of old stope above the 130 has become impoverished, and yields but little ore at present. In the other drivages there is no change worthy of remark, and the various stopes continue to produce about the same quantities of ore as of late.

POLBERRO.—March 25. The engine shaft is sunk 18 fathoms below the 26. The last parcel of stuff produced 11 lbs. tin to the ton. We are sinking as rapidly as possible. We have been obliged to suspend sinking the winze on Chappell's downright lode by water, which we cut in considerably increased quantities at a depth of 14 feet below the 26. We hope the shaft will drain the winze shortly. Meanwhile, we have put the men to drive west on Chappell's downright lode at the 26. The last parcel from this end yielded 50 lbs. tin to the ton. In the 26 crosscut north we have intersected some more branches, and we expect soon to reach the North House tin lode. The last parcel from the crosscut produced 14 lbs. tin to the ton.—(Signed) Charles Thomas, John Harper.

PRINCE OF WALES (East Cornwall Tin Mining Syndicate).—S. Roberts, J. Pyne, March 27: The ground in the crosscut at the 193 fathom level is easier for driving, there being less spar and capel in it. In the crosscut north at the 180 there is no change of any sort to notice, the ground being still of a mixed character. We have commenced clearing up the eastern shaft on the Wheal George Manganic lode.

SOUTH CONDURROW.—March 27: During the last few days there has been a fall of ground in the 60 fathom level east of King's shaft. It has completely blocked the level, and prevented the trammeling of stuff from three or four tribute pitches, and one stope. We are busily engaged in removing the obstruction, so that the discharge of tinstone through the 60 fathom level may be resumed as quickly as possible. The lode in the 133 end west of Marshall's shaft is regular and well-defined, and carries stones of tin. The stopes in the back and in the bottom of this level are worth £10 per fathom each. The stope west of rise above the mid-way level is worth £9 per fathom. The lode in the 167 end west has been disordered by patches of granite, but it is now better defined, and yielding low quality tinstone. The rise in the back of the 167 fathom level is worth £9 per fathom.—(Signed) Wm. Rich, Wm. Thomas, Fred Rich.

WEARDALE LEAD.—Report on Weardale Company's mines for week ending March 23: Groverake, Adamson's drift west vein in lower part of the forehead unchanged, but poorer in the roof, end worth 12 cwt. per fathom.—Boltsburn. Stopes in south flats from Watt's level worth 16, 36, 38, 34, 24, 30, 26, and 20 cwt. per fathom. Stope in vein worth 20 cwt. per fathom.—Greenlawns. Watson's drift vein rather nipped and hard to drive. Lowe's drift, Race's drift west from Walton's rise, drifting in plate under slatey hazel, vein composed of dolomitic spar, and a little ore, none to value.—Sedding. Driving 64 level east vein 3 $\frac{1}{2}$ feet wide of fluor spar and ore, worth 14 cwt. per fathom. 64 level west, vein poor, but improves up the heading. Opening 56 level we are east from the drawing shaft, level partly open, but continues too narrow for the wagon. Ore raised for the week 15 tons, ore dressed for the week 80 tons. No ore smelted, railroad still blocked with snow.

WHEAL FRIENDLY (St. Agnes).—March 26: As stated in my last report, I put men to sink a second winze below the 10 fathom level, and yesterday I assayed a parcel of 2 tons of stuff therefrom, and am pleased to inform you that it produced 44 lbs. of tin ore to the ton; this clearly shows that the lode improves in depth. The lode is 2 feet wide, and has a very promising appearance. I intend to take the men from the stope on the back of the level next week, and put them to stope east and west of the new winze.—(Signed) Charles Cole.

WHEAL AGAR.—March 25: Setting report: The 270 fathom level to drive east and west of crosscut on the new lode by boring machine at £11 per fathom. We previously reported this lode to be 33 feet wide; therefore, these ends are being driven on part of the lode only for size of end. That to the west produces low quality tin-stuff; that to the east for the last 3 fathoms has yielded 37 lbs. of tin to the ton, worth £9 per fathom. About 6 fathoms in advance of this point the Great lode was for 15 fathoms in length very productive for tin and arsenical manganic; when parallel with same we hope to have a further improved lode. The crosscut at the 255 is advanced 8 fathoms; in another 5 or 6 fathoms further drivage we hope to intersect the same productive lode that is being worked in the level above; this point is being driven by boring machine at £8 per fathom. The 245 to drive west of crosscut by boring machine at £11 per fathom. Lode for size of end carried worth £11 per fathom. 3 fathoms west of this drive there is a winze sinking in the bottom of the 235 by nine men at £11 per fathom, lode more than size of winze, and worth £12 per fathom. As soon as the end is in line with this winze, we purpose to rise against same and effect a communication as rapidly as possible. This will lay open a valuable section of ground for stoping purposes. We have two stopes working at this level, one in the back, by boring machine, the other in the bottom, by hand labour, each set at 5s. per ton, delivered in plot at shaft—worth for tin and arsenic, £15 per fathom. The 245 crosscut south, this about 50 fathoms west of the last-mentioned point, the object of this drive is two-fold. 1st, to see if any part of the Great lode exists south of that driven on: 2nd, to eventually intersect East Pool South or Engine lode, which traverses this property also. Seven fathoms beyond the present drive we ought to reach the lode; in other words, we hope to accomplish this work during this four weeks; the end is being pushed by boring machinery at £11 per fathom; to-day we met with a branch containing tin, but not to value. The lode in the winze sinking below the 225 is worth £10 per fathom, sinking by nine men at £10 per fathom. The low price of tin and other circumstances have constrained us to suspend operations at the 215 on the north part of Great lode, also the driving of the end at the 215 on Engine lode. It is a pity but what these points could be pushed to the western boundary; in so doing, no doubt a valuable course of tin ground would be met with; the lode indicates it in each point, and results secured on the same lodes in East Pool warrants the inference. We have 11 tribute pitches at work by 41 men, at an average tribute of 9s. in the £. We hope to get the new H-piece in its place on Friday next; when done, we trust to soon drain the mine and get everything in good order, by so doing make up for lost time and returns.—(Signed) W. Hambly, R. Daniell, M. D. Penhale.

COLONIAL, INDIAN, AND FOREIGN MINES.

ALMADA AND TIRITO.—Extract from a letter from the superintendent at the mine, dated March 4: New Mine. The tunnel south of Ibarra's Cutting, Guadalupe, has a nice appearance; the lode is wide, and contains a little ore. I have commenced to sink a shaft 100 feet east of the lode at the Tajo Blanco, which should cut the lode at about 160 feet deep. This is an interesting point, as to

all appearances the Europas lode joins the Pitaya lode here, and there is no doubt that this was a rich cutting.

BROKEN HILL PROPRIETARY.—The manager reports that for the week ending March 28, 8572 tons of ore were treated, yielding 631 tons of lead, containing 173,319 ounces silver; also 1491 tons treated by amalgamating and leaching plants, producing 51,660 ounces silver. The price of the shares in Melbourne is £2, buyers.

GREAT SOUTHERN TIN AND GOLD FIELDS.—The mining manager reports: Toora, February 16:—I have again to report that the rock in tunnel has been slightly harder in the distance driven the last fortnight. Distance driven the last fortnight, 24 feet. Total length of drivage from line of race 244 feet 6 inches.

ELKHORN.—Copy of Mr. C. A. Molson's monthly report for February: Mine.—Ore breaking department: 550 feet level south. The vein is 2 feet wide, and the value 36 ounces.—650 feet level south, porphyry stopes. The vein is 2 feet wide, and the value 35 ounces. This stope is being worked below the floor of the level, toward the intermediate drift.—750 feet level south, under second stope. The vein is 3 feet wide, and the value 35 ounces. Connection has been made in the back with the old working.—North of the shaft, inside stope. The vein is 15 inches wide, and the value 45 ounces.—850 feet level north, back of stope. The vein is 5 feet wide, and the value 42 ounces. The stope is shortening as it approaches the upper level.—South end. The vein is 18 inches wide and the value 40 ounces.—1050 feet level north, back stope. The vein is 5 feet wide, and the value 38 ounces. The stope is being extended northerly under the main chute of the 950 feet north stope.—1150 feet level north, inside raise stope. The vein is 3 feet wide, and the value 42 ounces.—1350 feet level north, underhand stope. The vein became of low grade, and work has been stopped.—South of the shaft, south end stope. The vein is 12 feet wide, and the value 36 ounces.—Back stope, centre. The vein is 8 feet wide, and the value 35 ounces, exclusive of some bunches and bands of smelting ore which assay 95 ounces and 10 per cent. lead. These irregular bodies yield the greater part of the ore shipped to the smelters.—1450 feet level north. The vein is of no value except for the bunches of lead ore, which assay 70 ounces and 8-5 per cent. lead.—South of the shaft, back stope. The vein is 3 feet wide, and assays 120 ounces and 15 per cent. lead.—Centre stope, foot of main raise. The vein is 4 feet wide, and assays 52 ounces. The ore is all of the dry milling class.—1550 feet level south. The vein is 4 feet wide, and the value 44 ounces. The ore is sulphide, and is sorted for shipment to the smelters.—1650 feet level south outside stope. The vein is 2 feet wide, and the value 43 ounces.—Inside stope. The vein is 3 feet wide, and the value 55 ounces.—Prospecting department, 1350 feet level north, raise from intermediate drift. Previously reported, 30 feet; advanced in February, 28 feet; total, 58 feet. The raise held to the 1250 feet level after passing through some low grade quartz. 1750 feet level south. Previously reported, 514 feet; advanced in Fbruary, 1742 feet; total length, March 1, 6882 feet. At a point 653 feet from the shaft the drift encountered a chute of ore which is continuous for a length of 44 feet. Its average width is 2 feet, and the assay value 26 ounces. The breast is in waste again, and the drift being pushed forward to prove the value of the downward extension of the inside chute as developed on the 1650 feet level. The ground is more favourable for ore than we have yet met with on this level.—Amount and source of ore hoisted, 550 level 4 cars, 650 level 61 cars, 750 level 34 cars, 850 level 122 cars, 950 level 108 cars, 1050 level 150 cars, 1150 level 139 cars, 1250 level 65 cars, 1350 level 570 cars, 1450 level 346 cars, 1550 level 49 cars, 1650 level 62 cars, 1750 level 115 cars; total cars hoisted, 1825. Number of tons, 1090. Milling department. The battery was hung up in the early part of the month during the repairing of the roaster, which required two new sections. The pans were not delayed, and made their usual run. Table of work performed in January.—Ore on hand February 1, 1895, 98 tons; raised from the mine, 1080 tons; less smelting ore, 77 tons; waste sorted out, 124 tons, 201 tons, 878 tons; add for salt, 130 tons; dry ore panned, 1022 tons, polo in the mill, 21 tons; rough ore in stock, 60 tons; 1107 tons; 1107 tons.

LION (Mozambique).—Report from Mr. Ninnes for January month: No. 1 drive, 24 feet. We are meeting with small strings of quartz. Total distance, 254 feet. During the month the ground has been much harder, and if we had not good mine hoes the distance driven would be much less. The soapstone is increasing in width. A cablegram was received from Mr. Ninnes on the 1st March reporting the total distance No. 1 drive as 300 feet. Crosscut west on No. 1 reef 10 feet, total distance 41 feet. No change to report. No. 2 drive 40 feet, total distance 169 feet. The ground appears to be undergoing a change. We have also struck more water—the latter a most favourable sign, as it is undoubtedly coming from a powerful reef. The claims adjoining our property to the west have been purchased on the strength of our splendid prospects.

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AUSTRALASIAN.—Fortnightly report dated February 14: During the past four weeks the contractors—Bishop and party—have sunk the shaft 16 feet, total 122 feet, and timbered to 103 feet. The first 12 days' sinking was through a greenish mud rock: this gave place to a dark limestone shade, in which they are sinking at present. The water lodge, at about 80 feet level, is now proving of great benefit. There is a heavy seepage of surface water above the lodge, which would, of necessity, run down the shaft; this water is now run into the lodge, which holds about 4000 gallons, and, being fresh, will be used for boiler purposes, only requiring small Tangye pump to force it to surface. Since the construction of the lodge, no water of any consequence is making under it. The prospects on this line of reef are steadily improving, and I have every confidence that your property when opened up will be a paying concern. The contractors for the erection of the machinery are making good progress.

BALAGHAT MYSORE.—Captain James Pryor, March 6:—Ogle shaft. The water is still being kept at the 410 feet level. The crosscut east at the 270 feet level south has been advanced 12 feet 6 inches, or 42 feet 6 inches from the level; the ground is at present hard for driving, but I think it is changing for the better. The distance of this crosscut was given in my last—viz., 34 feet 6 inches, it should have been 30 feet only, as the 4 feet 6 inches included the level.—Tennant's shaft. This shaft has been sunk 12 feet 6 inches, or 23 feet 6 inches below the 500 feet level; the ground now being passed through is of a more kindly character than seen for some time, I am, therefore, hoping we shall ere long meet with an improvement in its value. The crosscut west at this level has been extended 11 feet, or 31 feet from the shaft, and the crosscut east (for bob-pit only) has only been advanced 3 feet 6 inches, or 8 feet 6 inches from the shaft; its further extension is, for the present, suspended. The 500 feet level north has been driven 18 feet, or 55 feet from the shaft. About 10 feet behind the present end we intersected a small crosscourse. The ground in the present forebreast is of a more promising appearance than seen for some time, and I think it will soon further improve. The 420 feet level south has been advanced 6 feet, or 134 feet 9 inches from the shaft; the further driving of this end has been suspended. The 420 feet level north has been driven 24 feet, or 262 feet 3 inches from the shaft. At 245 feet from the shaft we passed through the dyke (it is 49 feet thick); since then the lode has been of a very kindly character, carrying various branches of quartz, but as yet its value is only about 3 dwt.s per ton. Nothing has been done in the winze in the bottom of this level since last report; there is, therefore, no change to note in its value. The mid or 385 feet level north has been driven 11 feet 6 inches, or 161 feet 3 inches from the shaft. Here the quartz suddenly bends to the east and west; we have, therefore, discontinued the north drive for a time, and put the men to follow the quartz, and have extended west 8 feet 6 inches, and east 4 feet 6 inches from it: course. In the former level the quartz is fully 3 feet wide, and in the eastern one 2 feet, but its assay value is as yet only from 3 to 4 dwt.s per ton. The 350 feet level north has been extended only 4 feet 9 inches, or 312 feet 9 inches from the shaft, and was then suspended as requested. We have also stopped the stopes both in the bottom of this level as well as the mid or 385 feet level north.—Surface: Not being able just now to raise the necessary stuff to keep the mill going full time, we have discontinued the milling for the present. The other surface works are being proceeded with in the usual way.

HARMONY GOLD AND LAND.—Under date 21st February, Mr. Precter writes:—Development, Now that the rains have ceased I have got to work again at Pebbine, and am going down with the shaft. The formation looks well, but I must go lower before I can speak positively as to results. Anyhow, I am on the continuation of Sutherland Reef. There are precisely the indications which present themselves in the upper workings of the Sutherland, and I have the New Reef of the Sutherland Mine clearly defined in the trench. At present I am doing no work on that. I feel certain that these reefs are as I have stated—the continuation of Sutherland Reef proper and the New Reef. This is not my own opinion alone, but it is shared by that of two of the best experts in the Low Country; moreover, I am confident that the reefs will run through your farms on to Solodula, and thence forward to the Drakensburg Range, so that you have at least 9 miles of this belt through your farms. Mr. de Villiers, the Mining Commissioner, told me that the claims pegged and registered on the Range since the year set in showed an immense increase.

HARRIETVILLE.—Fortnightly report of Mr. T. G. Davey, superintendent, dated February 15: Mons Meg Mine. Main winze below drive south of tunnel D sunk 4 feet, total 114 feet. Lode 4 feet wide, and carrying small veins of auriferous quartz. Influx of water causing very little inconvenience. Drive north of western crosscut 100 feet below D advanced 4 feet on a series of quartz veins in which gold is occasionally visible.—Stopes. Lodes in stope under tunnel D continues to be 8 feet wide, but of low grade. The stopes above this level are now exhausted.—Saint Bernard Mine. Drive north of crosscut from lower tunnel on United Miners lode advanced 16 feet, total 65 feet. Lode continues small and poor. Drive on small lode north of Grimsley's tunnel advanced 23 feet. Lode somewhat auriferous. In crosscutting east below the upper tunnel, and at a distance of 6 feet, an exceedingly rich vein has been developed. This vein is very flat and appears to be going into solid country. We are now crosscutting to this vein from a lower level, in order to more conveniently work it.—Returns. We cleaned up on the 5th instant for the following returns—viz. Mons Meg 388 tons for 111 ounces 7 dwts. of gold; St. Bernard 17 tons for 15 ounces 19 dwts. Pyrites works 24 tons, yielding 33 ounces 2 dwts. gold, total for four weeks 160 ounces 8 dwts. melted gold.

HANNAN'S REWARD.—The manager reports for the week ending 15th February that the Wynne shaft has been sunk a further depth of $6\frac{1}{2}$ feet, total depth to date 180 feet.—Bainfield shaft. The crosscut has been extended a farther distance of $6\frac{1}{2}$ feet, total to date $12\frac{1}{2}$ feet. At a distance of 7 feet from the shaft a 3-inch reef, carrying gold to the value of $6\frac{1}{2}$ ounces per ton, was met with. The gold is coarse, and of splendid quality.—Edwards' shaft. Crosscut south has been extended a further distance of 19 feet, total to date 99 feet.—Chairman's shaft. Cross cut north has been extended 17 feet, total to date 77 feet. No. 6 reef winze (86 feet level) has been sunk a farther depth of 8 feet 6 inches, total to date 11 feet 6 inches. The reef has improved a little in size. The gold contents of the reef for the week is $6\frac{1}{2}$ ounces per ton. No. 2 reef east drive has been extended a further distance of 7 feet, total to date 79 feet. The winding engine has left Victoria, and is expected on the ground in about two weeks' time.

about two weeks' time.

HANNAN'S BROWN HILL.—Mining report, February 16: No. 1 north of south shaft has only been advanced a few feet, but is in excellent ore. No. 1 south of south shaft is now in a total length of 49 feet. We passed out of the poor ground at about 35 feet, and have since carried a very rich lode to the end. From 4 inches it has now gradually widened out to 2 feet, and shows gold to the eye freely. No. 1 winze is holed with No. 1 level, and was sunk in good rich ore all the way, but the streak was very narrow towards the bottom. It holed into the level just where No. 1 south begins to make again.—No. 2 crosscut. The country is much disturbed here and very hard. We are not yet sure that what we took for the lode is really what we are working on in No. 1, so I am continuing the crosscut a little further. It carries gold, but seems very irregular. No. 2 winze is the old north shaft which I am going to sink to the level of No. 1, and drive to connect. This will give us nearly 400 feet of backs, but, of course, I cannot say yet whether it will be all in rich ore, although thus far there is nothing to point to the contrary. I have the windlass in place and the foot-wall straightened up so that on Monday sinking will be commenced.

JOHANNESBURG GOLD FIELDS.—The directors have issued a circular to the shareholders giving the latest information received from their manager at Johannesburg as to the progress and development of the various properties of the company. The tributaries on the Ziervogel property are opening up the mine, and have now a sufficient supply of ore ready for stoping to enable them to commence crushing at an early date, and according to the latest advices they have put the company's 20 stamp battery into thorough working order preparatory to starting the mill. The company's Zier-

vogel Mynpact of 289 claims and the Bethlehem Block of 10 claims are both situated in that part of the Rand which is at the present moment attracting attention in Johannesburg, and the developments on these properties, and in their immediate neighbourhood are very encouraging, especially as our manager on the spot advises us that the Ziervogel Mynpact can now be considered as also containing the Deep Levels of the Main Reef series at a workable depth, — Rietfontein freehold. The latest advices are as follows with regard to this property : About 40,000 trees have been planted during December, and altogether about 120,000 trees will probably be added to the company's plantations during the present season. These will bring the total number of trees owned by the company up to something over 250,000. On the whole, the directors consider the position of the company has materially improved during the last few months, and they hope, before long, to be able to give further satisfactory information to the shareholders.

MYSORE GOLD.—R. Hancock, March 6. Mining operations for the fortnight ending March 4. Rowse's shaft, 1460 feet level north of winze. This level has been driven 18 feet 6 inches, making a total distance driven of 208 feet. We have suspended the driving of this end; and have put the machine to sink a winze in the bottom of the level 140 feet south of the winze sunk 7 feet. The lode is 4 feet wide, assaying 7 dwt. 3 grains.—1360 feet level south of crosscut. This end has been driven 17 feet, making a total distance driven of 222 feet 4 inches. The lode is 1 foot wide, assaying 19 dwt. 16 grains. There are two stopes in the back of this level, the average width of the lode being 3 feet, given an average assay of 9 dwt. 15 grains.—1360 feet level north of crosscut. There are two stopes in the back of this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 3 dwt. 22 grains.—1360 feet level north of winze. The lode in the stope in the back of this level is 4 feet wide, assaying 1 dwt. 7 grains.—1260 feet level north. There are four stopes in the back of this level, the average width of the lode being 6 feet 9 inches, giving an average assay of 18 dwt. 8 grains.—1260 feet level south. The rise in the back of this level has been put up 16 feet 6 inches, making a total height of 105 feet 6 inches. The lode is 4 feet wide, assaying 16 dwt. 23 grains. There are two stopes in the back of this level, the average width of the lode being 4 feet, giving an average assay of 13 dwt. 16 grains.—1160 feet level north. There are six stopes in this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 1 ounce 0 dwt. 21 grains.—1160 feet level south. This level has been driven 28 feet, making a total distance driven of 368 feet 6 inches. The lode is 1 foot wide, assaying 1 ounce 8 dwts. 17 grains. The crosscut east in this level has been driven 17 feet, making a total distance driven of 47 feet. We have intersected quartz 1 foot 6 inches wide, assaying 2 ounces 4 dwts. The lode in the stope in the bottom of this level is 1 foot wide, assaying 2 ounces 10 dwts.—1060 feet level north ea. This end has been driven 16 feet, making a total distance driven of 621 feet.—990 feet level north. The lode in the stope in the back of this level is 1 foot wide, assaying 1 ounce 7 dwts. 10 grains.—890 feet level north. The lode in the stope in the back of this level is 3 feet 6 inches wide, assaying 1 ounce 12 dwts. 16 grains.—890 feet level north of crosscut. This end has been driven 12 feet 6 inches, making a total distance driven of 223 feet 6 inches. There is nothing here to report. The rise in the back of this level has been put up 8 feet 6 inches, making a total height of 27 feet. The lode is 4 feet wide, assaying 3 ounces 10 dwts.—890 feet level south. This level has been driven 16 feet 6 inches, making a total distance driven of 940 feet.—790 feet level north. The lode in the stope in the

driven of 240 feet.—780 feet level north. The lode in the stopes in the back of this level is 2 feet wide, assaying 14 dwt., 8 grains.—780 feet level north on the new shoot. This level has been driven 21 feet, making a total distance driven of 333 feet. The lode is 5 feet wide, assaying 1 ounce 19 dwt., 4 grains. The rise in the height of this level has been put up 8 feet 9 inches, making a total height of 50 feet 9 inches. The lode is 2 feet wide mixed, assaying 1 ounce 3 dwt., 6 grains. The lode in the stopes in the back of this level is 3 feet 6 inches, assaying 8 dwt., 11 grains.—620 feet level north of cross-cut. This end has been driven 3 feet, making a total distance driven of 316 feet. There is nothing here to report. The crosscut east has been driven 2 feet 6 inches, making a total distance driven of 161 feet. We have suspended the driving of this crosscut and have put the machine to drive north on the branch of quartz we intersected 9 feet from the breast of the crosscut. Driven 16 feet 6 inches. The lode is 9 inches wide, assaying 13 dwt., 1 grain. There are three stopes in this level, the average width of the lode being 3 feet 4 inches, giving an average assay of 12 dwt., 4 grains.—620 feet level south of crosscut. The lode in the stopes in the back of this level is 2 feet wide, assaying 17 dwt., 14 grains.—Crocker's shaft. This shaft has been sunk 18 feet, making a total depth of 103 feet 6 inches below the 620 feet level. The lode is 2 feet wide mixed; no assay made.—466 feet level north. The lode in the stopes in the back of this level is 4 feet wide, assaying 5 dwt., 5 grains.—400 feet level north. There are four stopes in the back of this level, the average width of the lode being 2 feet 4 inches, giving an average assay of 11 dwt., 17 grains.—296 feet level north. There are three stopes in the back of this level, the average width of the lode being 1 foot 10 inches, giving an average assay of 17 dwt., 20 grains.—236 feet level north. There are four stopes in the back of this level, the average width of the lode being 1 foot 7 inches, giving an average assay of 1 ounce 3 dwt., 7 grains.—Taylor's shaft, 466 feet level north. The lode in the stopes in the back of this level is 2 feet 6 inches wide, assaying 17 dwt., 14 grains.—Gilbert's shaft, 520 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 18 dwt., 2 grains.—520 feet level south. The lode in the stopes at the back of this level is 2 feet wide, assaying 13 dwt., 1 grain.—430 feet level north. There are two

assaying 10 dwt., 1 grain.—180 feet level north. There are two stopes in this level, the average width of the lode being 2 feet 1 inch, giving an average assay of 1 ounce 10 dwt., 17 grains.—360 feet level north. The lode in the stope in the bottom of this level is 2 feet wide, assaying 10 dwt., 10 grains.—290 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 1 ounce 7 dwt., 14 grains.—180 feet level south. There are two stopes in the back of this level, the average width of the lode being 3 feet 6 inches, giving an average assay of 1 ounce 16 dwt., 1 grain.—Tennent's shaft. This shaft has been sunk 18 feet, making a total depth of 146 feet 11 inches below the 600 feet level.—520 feet level north. There are three stopes in this level, the average width of the lode being 1 foot 11 inches, giving an average assay of 15 dwt., 13 grains.—Schaw's shaft, 450 feet level north of crosscut. There are three stopes in this level, the average width of the lode being 1 foot 5 inches, giving an average assay of 8 dwt., 14 grains.—450 feet level south of crosscut. Driving north on the eastern part of the lode. This end has been driven 8 feet 3 inches, making a total distance driven of 29 feet 6 inches. We have suspended the driving of this end and have put the machine to sink a winze in the bottom of the 450 feet level south of crosscut. 90 feet south of crosscut sunk 6 feet. The lode is 2 feet wide, assaying 1 ounce 0 dwt., 21 grains. There are three stopes in the back of this level, the average width of the lode being 1 foot 11 inches, giving an average assay of 6 dwt., 12 grains.—McTaggart's shaft. This shaft has been sunk 1 foot 6 inches, making a total depth of 54 feet 9 inches below the 550 feet level. The crosscut west from the shaft at the 550 has been driven 4 feet 3 inches, making a total distance driven of 58 feet. We have suspended the driving of this, and have put the machine to drive south of the crosscut 10 feet from the breast, driven 8 feet 6 inches.—550 feet level north. This level has been driven 10 feet 6 inches, making a total distance driven of 48 feet 8 inches.—450 feet level south. The lode in the stope in the back of this level is 1 foot wide, assaying 13 dwt., 1 grain.—320 feet level north. The lode in the stope in the back of this level is 1 foot wide, assaying 2 ounces.—320 feet level south. The lode in the stope in the back of this level is 1 foot 9 inches wide, assaying 7 dwt., 19 grains.—Glen shaft. 250 feet level north. No. 1 crosscut east has been driven 3 feet, making a total distance driven of 8 feet 6 inches. No. 2 crosscut east has been driven 13 feet, making a total distance driven of 326 feet 6 inches.—Ribblesdale's shaft. This shaft has been sunk 8 feet 6 inches, making a total depth of 543 feet,—1060 rise. This rise has been put up 6 feet 6 inches, making a total height of 99 feet 6 inches.—William's shaft. Crosscut east from the 175.

MOUNT LYELL.—The London board have received the following:

MOUNT LYELL.—The London board have received the following mine report from the Melbourne board for the week ending Feb. 6: Indicator winze, No. 3 tunnel. The winze has been sunk 3 feet, total 68 feet. The sinking is in fair grade copper pyrites.—North drive, No. 3 tunnel. The north drive has been advanced 5 feet, total 27 feet. There is no change to report.—No. 2 shaft, No. 4 tunnel. The engine is fixed, rope on, and bailing will be started to-night. There is about 20 feet of water in the shaft.—North drive, No. 4 tunnel. The north drive has been advanced 10 feet, total 52 feet. The country is now somewhat harder than it has been.—No. 1 rise south drive, 50 feet level engine shaft No. 4 tunnel. The contractors have put up the rise 2 feet, total 17 feet. The rock is much harder than it has been.—No. 1 winze, No. 2 crosscut, 75 feet level engine shaft, No. 4 tunnel. The winze has been sunk 4 feet, total 14 feet. The country is hard, and the water is somewhat troublesome.—North drive, 100 feet level engine shaft, No. 4 tunnel. This drive has been advanced 4 feet, total 94 feet. There is no change to report.—No. 5 tunnel. The contractors have driven the crosscut from this tunnel to the engine shaft 7 feet 6 inches. Another 18 feet of driving will bring the face of the crosscut directly under the engine shaft. Progress report for the week ending February 6; Main line, Earthworks, culverts, and outlets completed. Bridges over Queen river and Conglomerate Creek in progress.—Abt sifting. Machinery site. Earthworks completed to eight chains; in progress to 15 chains. Station yard at road crossing in progress. Clearing nearly completed. Work commenced to-day on bridge over Queen river.—Through tram. Earthworks completed for 40 chains, and in progress for junction with haulage line. All sawn bridge timber being delivered. Piers of bridge at 65 chains in position for superstructure.—Roast stalls. Excavation in progress for 200 feet, and clearing and burning nearly completed. Will start in excavation of smelter and converter sites directly. Abt line is finished.—Bank engine. Water supply. Race completed for 20 chains, and nearly completed reservoir. Telephone to mine finished on Saturday and working very well.—Limekiln. Foundations out and masonry started on bottom courses.—Quarry at Ragged Creek. Stone proved very good.—Sawmill. Plant running well and cutting building timber and sleepers. Brick plant running well. Experimental kilns finished and being charged, and will be ready for burning next week.

mysore reefs (Kangundy).—Fortnightly report of Captain Scuttlebury, dated March 6: Underlin shaft has been sunk 6 feet now 15 feet below the 225 feet level. The lode is showing a good hanging-wall, and is producing a little quartz, but of low grade. Winze below the 325 feet level north has been sunk 4 feet, now 24 feet below the level. The quartz is 1 foot 9 inches wide, assaying 1 ounce 6 dwt.s. of gold to the ton. We are carrying this winze the length of 17 feet.—Stopes in bottom of 325 feet level north. These are being carried to a length of 30 feet. For this length the quartz shows an average width of 15 inches, assaying 2 ounces 15 dwt.s. of gold to the ton. Rise above the 325 feet level north has been put on 6 feet 6 inches, now 30 feet 6 inches above the level. The quartz is 18 inches wide, assaying 8 dwt.s. of gold to the ton. Winze below the 250 feet level north has been sunk 5 feet, now 33 feet below the level. The lode is 2 feet 6 inches wide, but the quartz is intermixed with country rock assaying 4 dwt.s. of gold to the ton.—Vertical shaft. The 260 feet level north of crosscut has been advanced 15 feet, now 61 feet 6 inches from crosscut. The quartz is 2 feet wide, assaying 15 dwt.s. of gold to the ton. Winze below the 200 feet level north of crosscut has been sunk 1 foot, now 22 feet 6 inches below the level. The quartz is 15 inches wide, assaying 1 ounce of gold to the ton. Winze below 200 feet level south of crosscut has been sunk 3 feet, now 40 feet below the level. The quartz is 15 inches wide, assaying 8 dwt.s. of gold to the ton. We have sunk a well near Bisanattam village 27 feet, and have cut a small stream of water, which will be of great help for feeding the boilers.

NAMAQUA.—Abstract of superintendent's report for January : Tweefontein Mine. 125 fathom level east. Nothing new has been met with in this level. -115 fathom level east. This level is driven about 11 feet by 11 feet, and is passing through a valuable section of ground. Worth 6 tons of ore per fathom.—105 fathom level east. At this point the ore body is very wide, and it is doubtful whether the best part of it has yet been reached. Worth 3 tons of ore per fathom.—105 fathom level west. The ground here is mixed throughout with good quality copper ore, although not of much value.—95 fathom level west. This level is opening up a long section of ore ground, and has rather improved in appearance. The driving is 5 feet wide. Worth 5 tons of ore per fathom.—95 fathom level west, No. 30 winze. The lode is improving, and likely to become wider, and of equal value to the 95 fathom level. Worth 3 tons of ore per fathom.—New shaft. 25 fathom level west. The lode is not of quite so much value as for some time past, although the quality of the ore is very good. Worth 8 tons of ore per fathom.—25 fathom level west. No. 2 winze. This winze is being sunk on the south side of the lode, and shows a continuation of the ore body below the bottom of the level. Worth 10 tons of ore per fathom. No. 4 shaft. Good speed is now being made in sinking. The underlie of the lode has taken it to the north of the shaft, and probably the lode may not again be met with until the 25 fathom level is approached.—Stopes. Bottom of 105 fathom level west, back of 105 fathom level west, back of 105 fathom level east. The stope continue to yield well, and are worth 10, 8, and 9 tons of ore per fathom respectively.—Inside and back of 25 fathom level west. The stope here are also producing satisfactorily, and are each worth 10 tons of ore per fathom.—Shipping. The *Andaman* arrived at Port Nolloth to load on the 26th February.—Output for February. Cable advice not received.

NUNDYDROOG.—March 6: Report for the fortnight ending March 2: Taylor's shaft has been sunk 8 feet 6 inches, total depth 28 feet below the 1160 foot level. Lode 1 foot 6 inches wide, assaying 6 dwt. 6 grains per ton. The 1160 north has been driven 17 feet 6 inches, total distance 90 feet. Lode 1 foot wide, assaying 12 dwt. 12 grains. In three stopes in the back of the 760 north the lode averages 3 feet 4 inches in width, and 1 ounce in assay value. The lode in the stope in the bottom of the 680 north is 1 foot 6 inches wide, and assays 8 dwt., 18 grains. In the 600 north the lode has become so disordered a crosscut is now being driven east to prove the ground in that direction, and the rock drill has been removed to the stope in the back of the 1000 south from main shaft. In the stope in the back of this level (the 600 north) the quartz is 6 inches wide, and assays 1 ounce 3 dwt., 18 grains. In three stopes in the bottom of the 520 north the lode averages 2 feet in width, and 10 dwt. in assay value. The intermediate drivage north below the 450 foot level has been extended 6 feet, total distance 13 feet 6 inches, in search of the footwall portion of the lode, but only a small branch of quartz 3 inches wide, assaying 3 dwt., 18 grains has been met with. In the stope below the 370 north the lode is 1 foot 6 inches wide, and assays 8 dwt., 18 grains. The 300 north crosscut east has been extended 15 feet 6 inches, total distance 37 feet 6 inches. Branches of quartz still being met with. Main shaft has been sunk 8 feet, total depth 63 feet below the 1000 foot level. Lode 1 foot 6 inches wide of no value. The side drivage south on the footwall portion of the lode at the 920 north has been extended 18 feet, total distance 44 feet. Lode 5 feet wide, assaying 1 ounce 1 dwt. 6 grains. At this point a communication has been effected with the main level north, near the shaft, to facilitate the removal of the stuff broken, and the drivage will be continued southwards behind (i.e., to the east of) main shaft. A rise has now been commenced in the back of the 920 north, on the footwall part of the lode, at a point 23 feet north from north end of main shaft, where the lode is 5 feet wide and assays 11 dwt., 6 grains. The 920 north rise on the crosscourse has been put up 23 feet 6 inches, total height 71 feet 6 inches; discontinued. The stuff broken in this rise has proved of milling value throughout. The 840 north has been driven in a north-easterly direction 14 feet 6 inches, total distance from north end of shaft 30 feet 6 inches. The footwall portion of the lode now reached is 4 feet wide, and assays 7 dwt., 12 grains. The 680 north has been driven 11 feet 6 inches, total distance 406 feet 6 inches. Lode of no value, and drivage discontinued. Crosscut east from the 680 north has been extended 13 feet, total distance 288 feet. A

crosscourse having been met with in this crosscut, the drivage has been turned to follow its course north of east, and better progress may, therefore, be anticipated. The 520 has been extended eastward on the crosscourse 14 feet, total distance 88 feet. Some quartz stringers have been met with, carrying a trace of gold. A crosscut east has been driven 8 feet near main shaft at the 370 feet level, and will be continued with the object of searching for the lode, which it is anticipated will be found in this direction. Kennedy's shaft has been sunk 5 feet, total depth 16 feet below the 600 feet level. The 600 crosscut west has been extended 19 feet, total distance 58 feet. Some branches of quartz recently passed through show an assay value of 1 ounce 5 dwt., but we are not satisfied that the main part of the lode has yet been reached. The 520 south has been driven 20 feet, total distance 435 feet 6 inches. Lode (quartz) 1 foot wide, of no assay value. The 520 south rise has been put up (on a very slight inclination) 26 feet, total measurement 92 feet. Lode 7 feet wide, assaying 16 dwt., 6 grains. The 520 north has been driven 15 feet, total distance 448 feet 6 inches. Lode 4 feet 6 inches wide, assaying 10 dwt. The 440 south has been driven 23 feet, total distance 796 feet. Lode 3 feet wide, containing a trace of gold only. In two stopes in the back of the 440 north the lode averages 7 feet in width, and 12 dwt., 12 grains in assay value. The 370 south has been driven 20 feet, total distance 565 feet. Lode 1 foot wide, assaying 1 ounce 18 dwt., 18 grains. The 370 north has been driven 20 feet, total distance 423 feet, Lode 3 feet wide, assaying 3 dwt., 18 grains. In two stopes in the back of this level the lode averages 6 feet 9 inches in width, and 1 ounce 16 dwt., 21 grains in assay value. Crosscut west from the 370 north has been extended 19 feet, total distance 264 feet; no change. The 300 south has been driven 25 feet, total distance 334 feet 6 inches, Lode (quartz) 6 inches wide, assaying 2 ounces. In the stope in the back of this level the lode is 6 inches wide, and assays 1 ounce 15 dwt. The 230 north has been driven 20 feet, total distance 339 feet 6 inches. Lode 3 feet wide, assaying 10 dwt. The 160 feet north has been driven 3 feet 9 inches. Lode 3 feet wide, assaying 7 dwt., 12 grains. North shaft has been sunk 7 feet 6 inches, total depth 14 feet 6 inches below the 520 feet level. Lode 1 foot wide, of no assay value.—Old mill samples. Rough quartz through stone breaker, 1 ounce; smalls, 15 dwt.,—New mill samples. Rough quartz, 1 ounce 1 dwt., 6 grains; smalls, 17 dwt., 12 grains.

NINE REEFS.—Fortnightly report of Captain John Woolcock, mine agent, March 6: Vyvyan's shaft, 220 feet level south. The ground stopped for the month of February in the No. 1 stopes working in the bottom of this level is 4 fathoms 4 feet 2 inches. The lode is from $\frac{2}{3}$ to 3 feet wide, and the quartz leader varies from 6 to 8 inches, and this by assay is worth 1 ounces 10 dwts. 10 grains of gold per ton. Stoping by 18 men. The No. 2 stope working in the bottom of this level to the south of winze; the ground taken out for last month 7 fathoms 2 feet 7 inches. Stoping by 18 men. The lode is from $\frac{3}{2}$ to 4 feet wide, carrying quartz from 6 to 8 inches, and worth by assay 1 ounce 3 dwts. 8 grains of gold per ton. From the 1st instant all our stopes are being worked by hand labour with a view to economise coal at the compressor. The No. 4 stope working in the back of this level to the north of footway winze, the lode is 5 feet wide, and the quartz leader varies from 6 to 10 inches wide, and, by assay, is worth for gold 18 dwts. 8 grains per ton. The ground stopped for February 5 fathoms 2 feet; working by 18 men.—145 feet level. We have four stopes working in the back of this level to the south of shaft, in which the lode varies from $\frac{2}{3}$ to 5 feet wide, and the quartz portion, which is against the footwall, varies from 6 to 18 inches wide, and samples taken from the four stopes give an average yield for gold by assay of 1 ounce 13 dwts. 6 grains per ton; the stopes are being worked by 36 men. Total ground stopped for February 17 fathoms 5 feet 6 inches.—South shaft. The 216 feet level north of shaft has been advanced 11 feet 4 inches, total from shaft 22 feet 11 inches. The part of the lode carried in is from $\frac{3}{2}$ feet to 4 feet against the footwall, and this, I regret to say, continues of a disordered character, composed of schist and small veins and stringers of quartz, and carbonaceous lime, and worth for gold 2 dwts. 14 grains per ton. The 210 feet level south has been driven 3 feet 7 inches, total 11 feet 9 inches. The ground here is harder and much more troublesome for driving; but in the present end the ground appears to be changing, and I hope soon to be able to report an improvement. A sample from the footwall part gave by assay 5 dwts. 2 grains of gold per ton.—145 feet level north. The winze sinking at 100 feet from shaft has been further sunk 8 feet 6 inches, total depth 33 feet 2 inches. There is no change to notice in the character or value of the lode since my report of the 20th ult. A sample gave by assay yesterday 4 dwts. 6 grains of gold per ton.—Prospecting. McTaggart's lode, No. 1 shaft. The level driving north at 100 feet from surface has been advanced 4 feet 3 inches, total distance 64 feet. The lode varies from 1 foot to 18 inches wide, and is composed of a soft decomposed schist and small veins of quartz, highly stained with oxide of iron, and by assay worth for gold 2 dwts. 4 grains per ton. We have started to drive a crosscut east to the south of shaft; this has been put in 1 foot 6 inches. The ground is very hard, and progress is slow, but the water is another great drawback to the work here. We have had a good deal of trouble with the coolies during the past fortnight, having changed the contractors three times. The No. 5 shaft on this lode has been sunk 3 feet 1 inch, total from surface 103 feet 1 inch. The lode, which is from 1 foot to 15 inches wide, is composed of schist and a hard blue quartz, also contains a fair percentage of magnetic iron, and by assay is worth for gold 5 dwts. 14 grains per ton.—Surface. There is nothing in our surface operations that calls for comment, the machinery, &c., is kept in good order, and working satisfactorily.—Returns. We crushed last month 303 tons of mixed stuff, of which 90 tons was quartz, yielding 146 ounces 10 dwts. of gold.—Health. The general health of the camp continues good.

QUEEN'S BIRTHDAY UNITED.—We have received the following mine report from Mr. W. T. Hansford, the company's local secretary at Dunolly, dated February 15: Queen's Birthday Mine, No. 3 level. South drive cleaned out, road laid, and drive extended 4 feet.—No. 4 level. South drive cleaned out and driven 3 feet, stone just making in face; water lowered 4 feet 6 inches below No. 5 level; will use tank as well as pumps right through to break the main body of water. Pumps and machinery working well.—Belgium and Perseverance Mine. Perseverance lode. Have set men on here prospecting. Small shaft sunk 4 feet on to cap of lode, showing little gold, will push this on with all speed, and get out crushing, also crushing from surface of same. Will make preparations for cutting down No. 2 or centre shaft next week. Started crushing with 10 heads on Thursday. (Signed) W. Barton.

with 10 rods on Thursday. —(Signed) W. Barton.

SPITZKOP.—Under date February 21, the manager writes as follows:—The rains have given us a splendid supply of water for sluicing; one monitor worked full time. The wash in the channel is thick and hard; it is apparently of good quality, as a 3½ ounce nugget was found near the face. The manager had hoped to be in full swing early in April; but the floods have washed away one of the railway bridges, thus delaying the transit of the Pelton wheel, required to complete new works.

SELUKWE DEVELOPMENT SYNDICATE.—The following is an extract from a letter received by last mail from Mr. Jefferson Clarke, dated Bulawayo, 19th February:—"I have just returned from the Selukwe. The property is one of the most promising that I know of in this country, and if handled carefully and properly it seems that it will yield splendid returns. I will give you one of my best men on his arrival from America to take mining charge of the underground work. I am bringing over my best and most experienced men, and hope to give you the benefit of their experience and knowledge, and avoid mistakes, which are usually so very expensive to a mining company. Any time you are ready to start work I can put on 100 boys." The company cabled as follows on 1st March:—"Push ahead with development Selukwe. Credit opened in your favour £5000."

SOUTH AFRICAN MINING SYNDICATE.—The secretary has sent the following circular to the shareholders:—"I am instructed by my directors to send you a copy of Captain Janson's report on the property of the syndicate, which has just reached me:—I beg herewith to report on the property of the South African Mining Syndicate. The syndicate's mine is situated in the North Kaap, the

distance being 20 miles from Barberton and about 18 miles from the nearest point of the Barberton branch line, whence transport is easily procurable, a good road having been made from there on to the property. The mine is on the westerly portion of the main northern range, and on the line of several well-known properties. It consists of 30 claims in three blocks each, numbered 1, 2, and 3, and following each other in a continuous line, and showing the reef outcrops right through the property. The western beacons adjoin the North Sheba property, and are distant from the main working of North Sheba 120 yards, the outcrop of the lode in which we are now working showing very prominently and running into your ground, and we are now driving in the direction of your boundary with good results in regard to the quality and body of ore. The workings on the syndicate's mine comprise one drive, four shafts, and several open workings along the line of the reef. Men are now employed in reopening the workings and exploring the ground. The lode appears to be a permanent one, and varies in thickness from 4 feet to 6 feet, prospecting from 6 dwt. to 8 dwt. The quartz is pyritical, and assays which have been taken at various times and from different parts of the reefs vary from 8 dwt. to 3 ounces. There are several cross leads making into the main lode of the mine, and it is probable where these join the main body rich ore may be struck. From the appearance of the country rock, and the casing of reefs (tale), I am of opinion that the lode will increase in size and value in depth, though the ore will most probably be refractory. I have made several tests of pyritical ore from this lode, and found it in every instance auriferous. The outcrops of the reef lie along the summit of the line of hills on which it is situate, and there are several points at which low level adits could be driven, and, as the country rock is comparatively soft and easily worked, and the reefs are almost vertical in their dip, these adits would give great backing, and the cost of mining on an extensive scale would be placed at a minimum. Sufficient water for the driving of a 10 to 15 stamp mill is obtainable from the Madeleine Creek, within 500 yards of the property, and there is also an abundant supply of wood for mining, chlorination, and steam purposes growing on and near the mine. The De Kaap, or Lampogwana, river is within about a mile from the mine, and here sufficient water-power is obtainable for the driving of from 50 to 100 stamps and supplying the necessary motive-power for rock-drills and hauling and pumping machinery. In conclusion, I am of opinion that the property under careful management, and with sufficient working capital for the thorough opening up of the mine, and for the milling and treatment of the quartz on a large scale, would become a good dividend-paying concern.—I am, sir, your obedient servant, (Signed) A. C. Janson." Under the Articles of Association of the syndicate the directors have powers to enter into transactions for acquiring whole or part interests in mining properties in Africa and elsewhere, and the directors have already availed themselves of this power to the extent of taking an interest in a well-known mining property, which they anticipate will result in a profit to the shareholders at an early date. The directors also intend to avail themselves of their mining connections in South Africa and elsewhere, and from time to time, as opportunities occur, to enter into other transactions which they consider suitable for their purpose, always taking care there is every probability of such transactions resulting in a profit. When considering the question of the best management for the mine the directors decided to leave the matter under the supervision of Captain Janson, the manager of the North Sheba, which adjoins their property.

SUTHERLAND REEF.—The following is an extract of a letter from mine manager, dated February 21.—Battery. I am pleased to inform you that the battery started on the 18th inst. We started with 10 stamps, as the tables for the others were not quite completed, and we wanted to commence crushing as soon as possible. Yesterday we started five more, and to-day the whole 20 are at work. The battery and the engine work remarkably well considering that it is new machinery, as generally there is some heating of bearings and slackness of belts on first starting. Up to the present we have only been working during the day shift, as we want to get everything in thorough working order before starting night shift. We propose to start night work to-morrow, as I think everything will be in order by that time. The plates up to the present look very well considering the short time we have been working. We have at present only put through stuff from the dump, with the exception of a few car loads from the mine. As soon as the plates are properly set I intend to put through the rock as it comes from the mine from the different drives and winzes, and also to do a little stoping, and shall still continue to take a small portion from the dump, so as to get a fair average of the mine.—West drive 310 feet level. 21 feet have been driven, making total 57 feet. The reef is about 3 feet wide, and almost solid white quartz, and showing a good deal of visible gold.

quartz, and showing a good deal of visible gold.

SOUTHERN GELDENHUIS.—The following report, dated 4th March, has been received from the manager at the mines:—
Johannesburg, March 4th: Report of work done Southern Geldenhuys from 18th February to March 4th. Driving on main shaft 18 feet, making in all 58 feet. I have to report that the reef in main shaft is improving as we go down, but as the rock at the present depth is very hard it makes the progress rather slow. Referring to the new reef which I mentioned in my last report, this according to assays is not turning out as I anticipated, but it is improving in width and value as we go down, and I feel sure that when thoroughly opened up, it will be of great value to the property, in addition to the other reefs we have already proved.—Winze No. 2. Some of the quartz taken from above by myself and panned gave from 12 to 13 dwt., and as the reef is widening as we go down there is every reason to believe that this will turn out a first-class property; as I hope to have more labour next week, I will be able to report more fully on the above in my next report. In his letter accompanying the report, he writes:—The gold bearing reefs are distinctly traceable right throughout the property, and when further opened out must give excellent results, as the last crushing gave 15 dwt. to the ton, and then again you must understand that the quartz was not picked but was a good deal mixed with casing which could not be well separated. Assays from winze No. 2, as stated, gave 12 dwt., to the ton, of course, this must be considered good, taking into account the depth we are down.

TRANSVAAL GOLD.—Extract from general manager's advices, dated 21st and 28th February: Labour was employed repairing damages caused by the heavy rainfall. Skidding operations at Theta were continued. At Chi, Bets, Nu, and Iota work was proceeding with no fresh developments to report.—Mills. Brown's Hill. Work was proceeding as usual.—Kameel's. The weight crushed during February was disappointing, owing principally to the ore feeders becoming clogged on account of the wet and sticky state of the ore.—Cyanide works. Kameel's. The tanks were charged, but some little time will be required to permit the wood to swell, and so render them watertight, and in thorough working order. Theta-Kameel's aerial ropeway. The erection of the trestles was completed.—**SEBAGO AND ST. L'EST CLOUDS BUILDING.** Mine manager reports

WEST AUSTRALIAN GOLD FIELDS.—Mine manager reports on January 31 as follows:—Have taken over extension of Mount Margaret Reward Claim, and paid purchase money. Have equipped and started a large prospecting party to examine discovery on Block 50 of Hampton Plains Estate.—Mount Jackson. Shaft on No. 2 reef has been sunk to 85 feet. Lode is 4½ feet wide, solid, and well-defined. Underlie shaft on No. 1 line of reef sunk to 45 feet, but being anxious to test water level think it better to continue on deep shaft on No. 2 line. Am cutting mining timber and repairing windlass, and getting ready for hoisting stone. Have had to send for more tools and explosives.

WHITE FEATHER REWARD CLAIM.—Latest reports from the mine manager, dated January 19, state as follows:—No. 1 shaft is now down to a depth of 165 feet. Reef 3 feet wide, and very solid, looking strong. Quantity of water increasing, preventing skids being placed at the bottom, and preventing shaft being sunk any deeper for the present. No. 2 shaft has been sunk a further depth of 6 feet, making 80 feet from brace, all well timbered. Reef about 2 feet wide. No. 3 shaft sunk to a depth of 25 feet. Reef about 8 feet wide. North shaft sunk to 85 feet. Reef 2 feet wide, and making larger.—Main shaft. Contractors have now sunk to a distance of 86 feet, leaving 14 feet to complete first contract. No. 1 air shaft started on reef opposite main shaft. Sunk 9 feet.—Four acre lease,

Exemption has been obtained in order to concentrate all labour on shaft sinking and development on Reward block.—Golden Eagle. Have moved condensers to south-east corner by No. 1 shaft, and have built in two boilers.

YERRAKONDA. — Fortnightly report of Captain Scantlebury, dated March 6:—Beresford's shaft. The 300 feet level north has been extended 13 feet 6 inches, now 68 feet from shaft. The lode is 4 feet wide, assaying 4 dwts. of gold to the ton. 200 feet level north has been advanced 19 feet, now 342 feet from shaft. The lode is 2 feet wide showing good walls composed of small branches of quartz and mica schist.—Stopes in back of 200 feet level south. The quartz is 2 feet wide, assaying 10 dwts. of gold to the ton. New engine shaft has been sunk 7 feet, now 148 feet from surface,—South shaft. This has been enlarged to its proper size to water level and timbering commenced. I have bought a vertical boiler, which will be erected on this shaft as soon as possible to steam the winding engine.

AUSTRALIAN BROKEN HILL CONSOLS.—The mining manager reports by mail for the fortnight ended February 14. Block 96, 280 level east, prospecting drive, No. 4 rise, No. 6 rise stopes, driven 38 feet. There is no change in the eastern stopes, the lode consisting of oxidised matrix and carbonate of iron. In the western stopes a little native silver has been obtained—the lodes consisting of quartz and carbonate of iron and the mundic vein being very strong. Stoping is being done from No. 6 rise eastward, the lode consisting of iron and carbonate of iron and mundic.—Incline, No. 5 level east, driven 11 feet; total 86 feet 6 inches. The lode is getting wider and consists of carbonate of iron and calcite—a little galena has been met with.—No. 5 level west driven 9 feet 6 inches: total 50 feet 6 inches. The lode here is very small, and country very hard. Work has been suspended here for the present.—No. 1 rise, off No. 4 level east, driven 14 feet 8 inches. Some stoping has been done to the west of the rise, and immediately above the level; but only a little galena and fahlers has been obtained. The men are now stoping underhand from the level at the point where the rich deposit of ore was obtained last year.—Note. The quantity of rock mined during the fortnight was 2617½ cubic feet.

BRITISH BROKEN HILL PROPRIETARY.—Mining manager's report for week ending Wednesday, February 13 : Blackwood (No. 1) shaft, 150 foot level. Main north drive driven 12 feet, total length 167 feet. Face showing mullock, with small patches of lead ore in places. Have stopped this for present, and are now starting a west crosscut back about 25 feet from face of above drive. We broke in driving and crosscutting 7 tons, assaying 40 per cent. lead, and 4 ounces silver per ton. Main south drive lengthened 17 feet, making total length 153 feet. Its face is in pure mullock, and we have consequently suspended work in this drive also. We are starting a uprise about 50 feet from face of above drive, on a patch of lead ore exposed on the roof.—Howell (No. 2) shaft, 300 foot level. Main north drive lengthened 15 feet, total length 154 feet. Face in mullock. North-east drive extended 15 feet, total length 44 feet. Face mullocky.—Marsh (No. 6) shaft, 2nd level. We have started a south drive off face of No. 2 east crosscut, in order to follow a chute of sandstone about 3 feet wide; have driven same 7 feet. From uprise in end of south drive we mined 15 tons, averaging 27 per cent. lead and 37 ounces silver per ton. In the winze stopes we mined 16 tons, averaging 30 per cent. and 72 ounces, 4 tons, assaying 25 per cent. and 42 ounces, and 1 ton assaying 19 per cent. lead and 15 ounces silver per ton. From stops over north drive we broke 3 tons, assaying 28 per cent. and 71 ounces, 7 tons assaying 24 per cent. and 42 ounces, and 17 tons 21 per cent. lead and 15 ounces silver per ton, about 30 feet below this level; also from stopes over back of north drive. We are starting a drive southwards from these stopes about 20 feet below 2nd level, to follow lode in this direction.—Retallick's working. Winze in north drive off Retallick's winze was sunk 10 feet, making total depth 17 feet. Lode pinching somewhat in bottom. We broke 13 tons, averaging 49 per cent. lead and 27 ounces, and 6 tons 29 per cent. lead and 13 ounces silver per ton. The assays for the week vary from 9 to 63 per cent. lead and 39 to 108.7 ounces silver per ton.

108 7 ounces silver per ton.

MYSORE WEST AND MYSORE-WYNAAD CONSOLIDATED.
—Tank Block.—The mining manager (Mr. P. Bosworth-Smith) reports by mail for the month of February as follows: South shaft. We have put in a tip-plat at 400 level and carried down skip road below 450 level. We have had a break of bridge plate and also of sweep rod connection, but these were repaired with causing any serious delay. 450 crosscut has been driven to 49 feet, making a progress of 35 feet 6 inches. At 33 feet we cut into quartz, and this continued to 49 feet, where we cut into schist again. The quartz, which is 16 feet wide, is poor, and the walls are not defined; but in starting the 450 level north we have cut through the band of rock at end of crosscut, and we find that there is still quartz beyond of a better quality. The 16 feet of quartz seems like a big blow of poor quartz behind the lode. This point of the mine is developing very well indeed, more especially as the point where we cut the lode seems to represent the line on the shoot occupied by the pinched ground that occurred in the 400 south level between the shafts and the boundary. The big body of quartz was worth 12 dwts. when first cut, 6 dwts. 2 feet in, and was after that not more than 4 dwts., but better stuff is coming in behind the "horse" at the 450 north. 400 north has been driven to a distance of 269 feet 9 inches from the shaft, making a progress of 36 feet 3 inches. The lode in the end carries 8 inches of quartz worth 10 dwts. per ton. The end still looks well, but it has not improved. No. 2 rise was started on the 13th inst., and has been put up 25 feet 3 inches since that time. The lode is 18 inches wide, and is worth 8 dwts. per ton. 400 south stopes close to shaft is 1 foot wide, and worth 8 dwts. per ton. The lode here very mixed and the quartz is dying out.—354 level north. Stopes north of winze lode 1 foot wide, worth 6 dwts. per ton. Stopes south of winze lode 1 foot wide, worth 10 dwts. per ton. The mill ran 240 hours, and crushed 200 tons of mixed stuff, containing 100 tons quartz, which yielded 77 ounces of gold. The new mill boiler and the new boiler for south shaft pumping and winding engine are on the mine, and are being fixed. We have now started to run mill continuously.

ALUMINIUM.—The *Aluminium World* gives the following table showing the quantity, price, and total value of manufactured aluminium for each year from 1884 till 1893:—

Date.	Pounds.	Price per pound.	Value (total).
1884	150	\$9.00	\$ 1,350.00
1885	283	9.00	2,250.00
1886	3,000	9.00	27,000.00
1887	18,000	3.27	59,000.00
1888	19,000	3.42	65,000.00
1889	47,468	2.04	97,355.00
1890	61,281	1.55	61,281.00
1891	150,000	.66	100,000.00
1892	259,885	.66	172,834.00
1893	329,699	.75	249,022.00

The decrease in price in 1891 and 1892 was due to an infringement contest which produced competition among the manufacturers.

AN ELECTRIC LOCOMOTIVE FOR MINES.—*Le Temps* gives some details of an electric locomotive for mining purposes which can develop between 80 and 100 horse-power. On level ground it can draw, at a speed of 15 kilometres an hour, 65 trucks, each weighing about 550 kilograms, and carrying 1½ tons of coal. The total weight of the locomotive is only 10 tons; it is not more than 3 metres in length, 1.80 metre in width, and it is not more than 85 centimetres above the metals.

SECRET SOCIETIES, both of a harmless and harmful kind, are more numerous in this country than most people believe. Some are merely foolish, and may be safely left alone; but others are a real danger to the community. The members of the latter societies are mostly foreigners, outlaws from their own land, the riff raff of the Continent. Now, if we are to enjoy a healthy national life, these foreign impurities must be cleared out of our social system. It stands to reason that this is so, and what is true of the nation is true of the individual. Half the illness to which man is subject is due to the foreign impurities in the blood; by the use of Holloway's Pills these can be cleared away and health restored with certainty, safety, and rapidity.

IMPERIAL BRITISH EAST AFRICA COMPANY.

The Government proposals accepted.

A special meeting of the Imperial British East Africa Company (Limited), was held on Wednesday at Winchester House, Sir ARNOLD B. KEMBALL presiding, for the purpose of giving the directors the necessary authorization to accept the proposals made to them by Her Majesty's Government for the surrender of the company's charter and concession.

The CHAIRMAN said that at the previous meeting he made the proprietors acquainted with the reasons which prompted the directors to advise the acceptance of the Government's offer. This advice did not involve recognition of the adequacy of the Government's offer, but was held by them to be only consistent with the spirit that had governed the whole course of the company's operations. The company was confessedly not formed as a speculative venture. Its shares had not changed hands, nor had they been made the channel of phenomenal fluctuations in the market. Trade beyond coast limits was impossible pending development, and development to be remunerative must depend on the growth of resources, involving gradual expansion. Such were the indispensable conditions of ultimate success in the case of a company hampered with a heavy rent liability, presently and unjustly aggravated by the progressive alienation of Customs' dues assigned to its payment, and further debarred indefinitely the normal resources of revenue to cover the costs of administration. Political exigencies, however, specially supervised to constitute the company, the agency, and the only agency, available to Government, for securing national objects, resulting in the eventual acquisition of the Protectorate of Zanzibar, and of the whole of the British sphere, which included Uganda and the Nile districts. These objects so attained have entailed obligations on the State, which, though initiated more than three years ago, were still held in abeyance on the ground that the existence of the company was the only obstacle, and that the company must be settled with. The board would, therefore, deprecate any action which, in view of public opinion, could be interpreted or misinterpreted as the occasion of delay on the part of the company in promoting and consolidating British interests in East Africa—and this, in spite of the repeatedly-expressed willingness of the company during the past two years to accept terms which have been successively and authoritatively recognised to be entitled to prompt consideration. The Chairman concluded by moving:—

That as arbitration on the whole case of the company has been refused, the directors be and they are hereby authorized to accept the proposals made to them by Her Majesty's Government for the surrender of this company's charter and concession, and for the sale and cession of its property, assets, and rights in East Africa (excepting therefrom its cash balance, debts due and accruing due, including all mortgage loans) for a sum of £250,000 in cash, subject to such modifications or alterations as the directors may approve or agree with Her Majesty's Government, and that all necessary steps be taken for giving effect thereto.

Mr. GEORGE S. MACKENZIE, in seconding the resolution, said that the staunchest opponent of chartered companies could not certainly taunt Her Majesty's present advisers with having treated this company with undue liberality or even consideration. In a Foreign Office letter of 14th November, when a definite offer, for the first time after two years' negotiations, was made to the company, it was stated that there were "special reasons in the present case" which would justify Her Majesty's Government in compensating the company. It was said:—

There is a marked difference between the work of other chartered companies in Africa, in which the commercial element is a prominent feature, and that of the East Africa Company, in which that element has hitherto scarcely existed. On the other hand, the company were the pioneers through whose agency British influence was extended to the Lake district, and by their means the condition of the native inhabitants had been improved, and the slave trade has been suppressed in the territories administered by them. Moreover, the maintenance of posts at Machakos and Fort Smith—where useful and effective control has been exercised by the agents of the company—materially facilitated the work which has been undertaken by Her Majesty's Government in Uganda. It may, therefore, be fairly claimed on their behalf that a certain amount of substantial work has been done to fulfil the objects for which the charter was granted, in quarters from which no compensating income is derived.

Such was the official testimony of the Foreign Office of the services the company had rendered to Her Majesty's Government. This admission of Her Majesty's Government entitled the proprietors to enquire on what basis of valuation the sum offered—£250,000—had been calculated. Leaving interest extending over a period of 8 years out of the question, it roughly represented a return of about 10s. only in the £. On what basis of valuation the figures were arrived at, or why the shareholders should sacrifice one shilling of their outlay, no one at that table could explain. No effort had been spared by the directors to represent the company's case fairly and fully to the Foreign Office in the hope that a more satisfactory and equitable settlement might be arranged, but none of their proposals were entertained, and they had it on the authority of the Earl of Kimberley that the Cabinet had definitely decided not to sanction arbitration. The offer made by Her Majesty's Government was £200,000, exclusive of their private assets, or £250,000 including them. Of this sum the Sultan contributed four-fifths—cash he received from the German Government for the Customs revenue of the territory transferred to them. The British Treasury provided only the remaining one-fifth of the amount. In relinquishing their concessions and assets to the Sultan, he had received or would receive full cash value, and paid the company absolutely nothing for their eight years' labour, acting as caretakers, or for the improvements they had carried out on his property while they were his tenants, a position from which they were now being unceremoniously evicted. In further remarks the speaker said that what the directors protested against was that the settlement took no adequate account of the public services rendered by the company, as stated in the Foreign Office letter of 14th November, which he had quoted. In relinquishing their charter, however, even at the sacrifice of half their capital, there was the satisfaction of having secured in their eight years' administration of British East Africa, without bloodshed and at no cost to the British taxpayer, the liberation of more slaves, and of having done more than had been accomplished by Her Majesty's Government during the past twenty years at an expenditure by the Treasury of not less than two millions sterling.

The resolution was then put and carried with practical unanimity.

M. B. FOSTER AND SONS.

The Australian trade.—Prospects for the future.

The fifth annual general meeting of M. B. Foster and Sons (Limited) was held on Monday at 242 and 244, Marylebone-road, Mr. JOHN H. FOSTER presiding.

The SECRETARY (Mr. Alexander Knight) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—I am sure that the feeling which is uppermost in the minds of all those present must be a mingled one of painful surprise and dissatisfaction at the miserable result of the company's trading in the year 1894. (Hear, hear.) And your directors consequently occupy a most unenviable position today. This seems to be especially the case with myself, as the vendor of the business, particularly after the strictures which have appeared in the Press. Your directors have worked very hard, but in spite of their unceasing labours and anxious devotion to the interests of the company, their efforts, through a combination of adverse circumstances, have not been crowned with success. The present serious and unhappy state of affairs, however, has not arisen from any neglect or mismanagement on their part, but is almost entirely owing to the course of events abroad, whose disastrous results could not be foreseen, and, if foreseen, could not have been prevented by us. This being so, I venture to express the hope that the present board may still enjoy that confidence which the shareholders have hitherto placed in them. I will now make some remarks on the Press article to which I referred. A paper states:

"The price payable to the vendor was the large sum of £382,000, of which £242,000 was payable in cash." This simple recital, though the figures are correct, would, without explanation, most certainly mislead the reader. The only cash I can properly be said to have received was £81,000. Of this, £10,000 was on account of goodwill, and £71,000 the certified value of the splendid freehold premises at North Woolwich, the lease of the building in which we are now assembled; the stables, mineral water factory, plant, and machinery, &c., which are now the company's property. The cost price of the stock of beer belonging to me at home, and that afloat and abroad on consignment amounted to rather more than £160,000, but I was not paid for this latter until the company had sold the goods and realised the money; this came to rather more than £85,000, on which they made a profit of £18,000, and I had to wait 15 months for the final payment. The home stock of £74,758 was taken over on 1st January, 1890, and, therefore, a considerable part of it sold for the benefit of the shareholders before the company was formed in March. If to these you add the £140,000 remaining to be paid for goodwill, you make up the £382,000. But this £140,000 I took in shares, and if the other shareholders get no dividend, I get nothing, and we are, indeed, brothers in misfortune. The writer says it is not as if the company's trade had been suddenly ruined by new conditions or events possible to foresee. Well, the labour trouble, land booms, financial troubles, the doubling of the duties on imported bottled beer—in some places amounting to 3s. per dozen, and in others to 3s. 6d.—and the failure of the 13 important banks in six weeks, could certainly not have been anticipated, or their results avoided. These, as well as the causes named in the report, are quite sufficient to account for the great diminution in the company's foreign trade. The writer further says:—"The business has been declining ever since it was sold," but, leaving out the export, the trade has been steadily increasing till last year, when there was a falling off of 35,000 dozen. Still, the output of home trade beer for the year now under review was—of Bass and Guinness 400,651 dozens, and of light ale and stout 157,299 dozens, or a total of 557,950 dozens; whereas in 1889, the last year of the old partnership, it was only 233,076, so that this branch has considerably more than doubled. The one supreme object of your directors is to recover this volume of profit which has been lost through the unavoidable decay of the export trade, and if favoured with a renewal of your confidence they will embrace every legitimate opportunity, and use their best endeavours to accomplish this in the wisest and most permanent way, and thus restore the financial prosperity of the company. I will now move "That the report and balance-sheet be received and adopted." (Applause.)

Mr. J. S. WOOD, in seconding the motion, said: Your directors, on the completion of the June audit, found themselves in possession of something over £6300 net profit, and, acting upon the authority of the Articles of Association, they paid the interim dividend as usual on the preference shares, knowing that many of the members depended upon its regular receipt, and feeling they were scarcely justified in withholding profit fully earned, although there was a possibility, or even a probability, of a reduction in the succeeding six months. I do not hesitate to say that, if any, of my colleagues were sanguine enough to suppose the full dividend could be paid for July-December, though certainly at that time it was not contemplated that an actual loss would occur, for one reason, because no one could forecast the cold, wet summer and autumn which stopped to so great a degree outdoor amusements and festivities, upon which a business such as ours is largely dependent. Moreover, the export department again disappointed us owing to various causes, of which one, suggestive of others, may be mentioned. An amalgamation of certain bottling firms doing business in South Africa and elsewhere took place; the proprietors deemed it wise to signalise the event by reducing their already too-cutting prices, which compelled us to follow suit, the result being loss of much-needed profit all round, and so this senseless fratricidal competition goes on. May the fittest survive. Paragraph 4 of our report speaks for itself. Statistics recently published show that exports and re-exports from this country in 1894 were £54,000,000 sterling less than in 1890, and here you have the reason for the straits in which this company and other shipping houses find themselves. Comparing our own books for the same periods, I find a decline in profit on exports of no less than £30,000, this being the sole reason for our inability to pay dividends as formerly. I am too busy a man to study the bi-metallic theory as I should wish; enough for me is the fact that the depreciation of silver results in our receiving in gold only 55 per cent. of the value obtained (in silver) for our beer in India and the East generally. Every effort is being made to combat the difficulties which confront us. As hinted in the report, it is hoped that some of the unremunerative markets, which would otherwise have to be resigned to the Germans and local brewers, may be revived by shipping thereto a beer which has successfully passed the experimental tests at home, and in most of the colonies. There is little to add in respect to the home trade, though it is some encouragement to record that the profit last year (apart from the extraordinary items mentioned in the fourth paragraph of the report) was more than double that which was made when the company acquired the business, but the figures are so comparatively small as to be utterly inadequate to compensate for the terrible leakage abroad. The speaker then said the large advance in sales of light beers was distinctly cheering, but, there again, they were encountered by a drawback as the valuable premises in which that trade was conducted, would have to come down for the Manchester, Sheffield, and Lincolnshire Railway. He spoke hopefully of the Brighton branch, and pointed out economies which had been and were being made. The temporary loan, for which the company paid 3½ per cent. and got 6½, would be reduced in the present week by a further £6000. In conclusion, Mr. Wood said:—Possibly it may be imagined, from the remarks which it has been my duty to make, that I take a pessimistic view of this company. Nothing could be further from the fact, assuming it continues to be managed on sound and honourable commercial lines, due regard being paid to altered circumstances, and to the fluctuating requirements of the great trade to which we cater, and that the integrity of the company's capital is not prejudiced by speculative ventures being entered upon, or, indeed, any new undertakings, lightly or without anxious care and enquiry, and, gentlemen, if the confidence of the shareholders is accorded us, these lines will be maintained. (Applause.)

The CHAIRMAN, in the course of the discussion, said that he, personally, held nearly one-third of the capital of the company, not counting the holdings of other members of his family. All the savings of his life were in the company, and it was clear that he would not fold his hands and let the business go to wreck. (Hear, hear.)

The motion for the adoption of the report was then put and carried unanimously.

Mr. J. H. Foster and Mr. M. A. Whitchelo, the retiring directors, were re-appointed, as were also Messrs. Price, Waterhouse, and Co., the auditors.

A vote of thanks to the Chairman and directors terminated the proceedings.

ORIENTAL AND SHEBA VALLEY UNITED GOLD MINING COMPANY (LIMITED).—A general meeting was held on Monday, at the Cannon-street Hotel, to receive the liquidators' accounts.—Mr. A. T. Layton presided, and said that out of between 1500 and 1600 shareholders in the Oriental Company there were 169 who had not made applications for their distributive proportion of shares and cash, or who had been unable to sustain their claims, or who had been partially dealt with. Those represented 10,268 Oriental shares, and in respect of these it was the intention of the liquidators to take the direction of the Court as to what course was to be pursued.—After some discussion the accounts were adopted, and the following resolution passed:—"That the books, accounts, and all other documents and papers of the company, and of the liquidators thereof, be retained by the said liquidators, they undertaking to destroy the same upon the expiration of six months after the dissolution of the company."

THE ELECTROLYSIS OF GOLD.*

By W. S. KEITH, M.I.M.E.

THE greater part of this paper consisted of extracts from the papers by Von Gernet, Eissler, and Butters and Smart, which we have published. The following extract describes the process devised and patented by Dr Keith:—"After thorough experimenting and test I have devised, and patented throughout the gold-producing countries of the world the following-described process for electrolytically obtaining gold and silver from auriferous and argentiferous rocks and ores:—Sufficient solution of cyanide of potassium, of a strength varying from 2 to 10 lbs of cyanide to each ton of water, with from 2 to 10 ounces of a soluble salt of mercury is prepared. The finely-pulverised ores, or tailings, are submitted to the leaching process with this solution, as in the other cyanide processes. The electro-positive gold in the tailings decomposes the mercury salt which comes in contact with it, and thereby produces voltaic couples of mercury and the minute particles of gold, thus hastening the solving of the gold. As the speed of solving is dependent upon the actual contact of the gold and mercury with the cyanide of potassium, it is preferable to keep the solvent in constant motion during the percolation or leaching, so that fresh solvent, not exhausted of its cyanide, may continually be in contact with the gold. To accomplish this, the whole, or part of the solvent is frequently drawn from the leaching vat, or is continuously passed through the tailings, until the solving action is completed. In this way much weaker solutions may be used than is the case where the cyanide solution is allowed to stand for a long period in the tailings. The weak solutions are preferable, because the losses in material are not so great, and they are equally as good solvents as the strong, though not so speedy. As the solutions come from the leaching vats they are run continuously through electrolytic precipitating or depositing vats, constituted as follows:—Long boxes are provided (say) a little over 2 feet deep and 2 feet wide, containing copper plates 24 inches square and crossing the boxes every 1½ to 2 inches, but placed so that every alternate plate rests on the bottom and sides of the boxes, and the intermediate plates are raised about ½ inch above the bottom of the box. The number of plates and the length of the boxes are sufficient to permit of the deposition on them of all the metal constituents of the solution without so great a density of current that hydrogen is deposited likewise. If the solution be kept sufficiently in motion, the density may be 0·1 ampere per square foot of cathode surface; but, as the solution becomes much weaker in metal towards the latter end of the vat or box, the density there cannot be so great. But this matter is self-regulating, because the greater tendency to polarisation impedes the passage of the current at the latter, and weaker, end. On the average basis of a density of current of 0·06 ampere per square foot, a cathode surface of 800 square feet is ample for a plant treating 3000 tons of average tailings per month. One hundred plates of the size named supply this amount of surface. These plates are preliminarily amalgamated with mercury, and are each connected with a bus-bar, which is connected with the negative pole of the source of electricity. Between these cathodes are placed porous cells filled with a half-saturated, or other strength, aqueous solution of an ammonium salt, such as the chloride or sulphate. Into each cell is placed a rod, strip, or prism of zinc or iron, and each of these is connected by wire to another bus-bar, which is connected with the positive pole of the source of electricity. The cyanide solution of gold and mercury is passed continuously through this vat, tank, or box in a steady stream, and at a rate which ensures the deposition of a greater part of its metallic contents. If the quantity of mercury on the copper plates, together with that which is deposited from the solution, be not enough to keep the amalgam in a sufficiently plastic condition, more mercury solution may be added to supply mercury for that purpose. If it be too soft, the amount of mercury solution may be decreased. No mercury is lost, because recovered by the electrolytic deposition. Because the gold is deposited in exceedingly attenuated particles, the amount of mercury necessary to form with it a plastic amalgam is much in excess of the quantity of gold—(say) 3 or 4 times as much. This relation varies with the rate of deposition of gold. Take, for example, 12·6 ampères to deposit 1 ounce of gold per hour, and 29 ampères to deposit 3½ ounces of mercury in the same time, and we have the practical requirement of 41·6 ampères to deposit 1 ounce of gold per hour. This for 7½ hours per month is enough to more than deposit the 697 ounces produced per month by the use of 300 ampères for the same time. Because the anode is rendered soluble by putting it in a suitable electrolyte there is no consumption of energy in the actions which there take place. There is no escape of uncombined or free oxygen. A zinc anode is electro-positive to the mercury cathode to the extent of 0·25 volt— in itself sufficient to cause the deposit. When the anode-electrolyte has become exhausted as an electrolyte by the formation of double salts with the metal of the anode, the porous pots have their liquid contents removed and new electrolyte substituted therefor. Porous pots are used an inch or so in diameter and 24 inches deep; 8 or 10 in each space between the cathodes are sufficient. The cathode, though in its substance mainly of copper, is electrically, a mercury one; therefore, not as strongly electro-positive in its electrolyte as is a copper one. But the anode is sufficiently electro-positive to it to keep the cyanide solution from dissolving the gold and mercury when the dynamo, or other source of electricity, is unconnected, provided the anode and cathode be connected electrically. The depositing vat can be, and is preferably worked continuously. The anode parts are supplied from time to time as fast as dissolved. The anode electrolyte is renewed from time to time, as necessary by the use of a hand pump. The amalgam is removed whenever desired from the cathode plates. For this purpose they can be disconnected from the bus-bar one by one, removed from the vat readily, the amalgam scraped off, and the plates returned to the vat. There is, necessarily, no wholesale removal of electrodes, as for instance, in the previous case, when the iron plate anodes became full of ragged holes from corrosion, or when the lead cathodes were removed to be melted and capped. The amalgam is "retorted" as in the usual routine of gold amalgamation—a much simpler and less expensive operation than melting and capping. Practically no mercury is lost; but lead cathodes are lost. The electro-motive force necessary to carry out this process does not exceed one-half volt. Whatever there be more than that would be expended in decomposing the water of the electrolyte, thus unduly oxidising the anode, and setting free hydrogen at the cathode to no good effect; but, rather, cover the cathode with hydrogen films, and to that extent reduce the surface available for receiving the metal deposit, thus increasing the resistance and lessening the current. In the effort to increase the metal deposit by raising the voltage we would meet the same difficulty as is experienced with the said Siemens and Halske process, and find, as Von Gernet says, "a better effect is gained by doubling the surface than is obtained by increasing the current ten-fold." The expense of working 3100 tons of tailings in August, 1894, at the Worcester mill, in Johannesburg by the Siemens and Halske process, as stated by Eissler, was, in detail as follows:—

	Total	per ton
Cyanide	75	6
Lime	15	1·2
Caustic soda	6	0·5
Lead	14	1·1
Iron	28	2·2
White labour	65	5·2
Natives' wages and food	20	1·9
Coal	57	4·6
Stores and general charges	41	3·2

* By the improved electric process at least £103 or 10·5 per ton, can

* Extract of a paper read before the Institution of Electrical Engineers.

be saved in expense in the following items:—One half of the cyanide, all of the lead and iron, 10 per cent of the labour, and 3 of the coal. There would be wasted by the new process (say) 25 lb. of zinc, worth at the mines about 19s., and about 5s. to 10s. worth of ammonia-salt—about 0'11d per ton. The use of strongly alkaline solvents is desirable during the dissolving stages of a cyanide process, because the alkali serves to decompose various salts and oxides, such as ferrous sulphate and oxide, ferric sulphate, and sulphates of aluminium and magnesium, &c., which would otherwise decompose the cyanide. But alkali is inadmissible when zinc precipitation follows, because of the increased waste of zinc caused thereby in the formation of zincate of the alkali. The alkali is inadmissible when chlorine, iodine, bromine, and such like cyanides are used, because they expand their action on the alkali instead of where desired. By my electrolytic process the solvent may be very strongly alkaline without detracting from its desirable solvent action, but rather adding to its efficiency, and decreasing what would otherwise be the solvent action on other constituents of the ores.'

MINING NOTES FROM JOHANNESBURG.

By H. BUSH, M.E.

(Cabled Weekly).

Spes Bonae.

The lower levels are opening up exceedingly well, and the Main reef shows about 6 to 7 dwt. The rich Wolhuter chute should be met with in the course of two or three weeks. Development is being well pushed ahead, but the mill is not likely to resume crushing before the end of the year.

Steyn Estate.

Considerable attention is at present being paid to this property, and the whole of the ground adjacent is taken up. Many enquiries are being made for properties in this locality, and big properties are being paid for adjoining claims. The Steyn Estate property is a very large one, consisting of a large mynpacht and about 450 claims, in addition to several thousand acres on the farm Vlakfontein, which will be a very large contributor to the funds of the company for licenses on claims pegged. The reef is almost vertical, but doubts are expressed as to whether it dips north or south. However, the opening up of the reef in this company's property continues to show improvement, the quality of the ore being exceedingly rich and the lode well-defined.

Wolhuter.

This mine is making rapid progress in the right direction, and the acquisition of the Deep Levels places it on the soundest footing, and ensures the mine a very long life. In addition to the 30 extra stamps, which will start crushing about June, still another 30 will be added. A new incline shaft will be started immediately, and the work pushed ahead with all dispatch. The lower levels are opening up exceedingly well, and the ore is of a very high grade. The stoning is very inexpensive, and the reef can be worked at a very low cost.

Venterskroon, Vaal River.

This portion of the Transvaal is likely to come into favour at an early date. Already a powerful and influential syndicate has been formed to prospect the immense bodies of banks. The pannings all along the line show excellent results, and with cyanide this field will give a good account of itself. The facilities for working being so great, the expenditure will be 30 per cent. less than other properties on the Rand. The Tygerfontein is expected to start operations at an early date, and as the reef is well-defined and is 14 feet wide, and will give from 5 to 8 dwt. right across, this should be a good thing. The Vaal River mining properties are, undoubtedly, some of the best propositions on this immense field.

Cassel Colliery.

The new economiser is nearly completed, and this means further reductions in the expenditure. This month being a short one, the output of coal will be about the same as January, but for March the result will be over 20,000 tons. Profits for February, approximately, £3700; for March over £4000; and after that time close up to £6000 monthly, with increased demands from all quarters for the coal.

Coal Trust.

This property, with its enormous capital, is in a very bad state, with very poor prospects for the future.

REDRUTH MINING EXCHANGE.

Dividend of 5s. per share.

The annual meeting of the Mining Exchange Company (Limited) was held at Redruth on Monday.—Mr. D. W. BAIN, J.P., presided.

The directors in their report stated that the members had not decreased to any serious extent, and that they recommended out of the profit of £27 a dividend of 5s. per share.

The CHAIRMAN, after referring to the prolonged depression in Cornish mining, stated they could take some encouragement from the fact that there had been an appreciable advance in the price of tin. He hoped trade would improve generally, and that they would participate in the better state of affairs. There was in the county at present a movement in favour of the Limited Liability system. Personally, he had not in the past looked upon Limited Liability with any large amount of favour, mainly because it had not been a success in Cornwall as a rule, and there had been such heavy charges in the promotion. But he was bound to say that there was no mine in the county that offered a better opportunity for the trial of Limited Liability than Dolcoath. He believed that between this and the adjourned Dolcoath meeting a solution would be arrived at. On the part of the lord there was, he believed, a desire to do what he considered was right, and he hoped wise counsel would prevail on the part of the committee, so that by giving and taking, a settlement would be arranged. It was with regret that he noticed that it was proposed to abolish the Stannaries Court. He would rather see an extension of its powers, so that any differences arising out of mining might with confidence be referred to it. (Hear, hear.) He should like to see the court so extended in power that it might deal with such difficulties as they had at Dolcoath now. He hoped that even yet this court would reappear in another form, and be more useful than it had been in the past. (Hear, hear.) He proposed the adoption of the account, which was seconded by Mr. T. PRYOR, and carried.

Mr. WALES moved, and Mr. MILFORD seconded the re-election of the retiring directors, Messrs. D. W. Bain, S. Abbott, M. Edwards, W. Rowe, J. Sims, J. Wicksell, A. Lanyon, S. J. Davey, R. Nettell, T. Pryor, and R. S. Teague.

Carried.

Thanks to the secretary (Mr. George Bray) concluded the proceedings.

Members of the Mining Exchange then held their annual meeting, under the presidency of Mr. D. W. BAIN.—The accounts showed that the receipts were £105, and the expenditure £76, leaving a balance of £29 in hand.—Messrs. Johns and Letcher were appointed to act on the committee with the above-mentioned directors.—Thanks to the directors, Chairman, and secretary (Mr. W. Edwards) followed, and, in replying, the CHAIRMAN said they would not say to whom the depression was attributable, for that would logically be admitting the power to advance prices, but they would attribute the depression to the general condition of trade.

A. J. STEWART AND CLYDESDALE (LIMITED).—The annual general meeting was held on Tuesday in the Accountant's Hall, Glasgow.—Mr. Andrew Stewart, the Chairman, who presided, in moving the adoption of the report, said that at the last meeting he intimated that there was an appearance of an improvement in prices. He regretted to say that during 1894 the prices did not improve. Since the company began business in 1890 the prices had continued falling, and last year reached a lower point than during any previous period. Accompanying low prices there was a great scarcity of work and keen competition for the orders which were in the market. Their new steel plant was not in operation, and they were unable to compete with more modernly-equipped works. They decided, in the interests of the shareholders, to carry on their works during the coal strike; and to enable them to do so they had to bring coal from distant places, paying very heavy carriage, and thereby incurring serious loss. But for that unfortunate strike they would have been able to recommend a higher dividend on the ordinary shares of the company. These remarks would enable them to appreciate the difficulties under which they had laboured, and which they hoped would leave the impression on the minds of the shareholders that, on the whole, the profit made during the year might be considered fairly satisfactory. The profit for last year was £34,821, and, adding the balance from 1893, made the total £42,990 14s. From this amount they paid an interim dividend of 6 per cent. on the preference shares, and 2½ per cent. on the ordinary, amounting to £13,125. They now proposed to pay a dividend of 6 per cent. on the preference shares and 3½ per cent. on the ordinary, amounting to £15,375, to place £10,000 to depreciation, and £4490 to next year's credit. The accounts would then show a reserve and depreciation fund of £100,000. With regard to the letters which had appeared urging that a larger dividend should have been paid, he thought if the directors erred at all they should do so rather by being over-careful than otherwise in these times. He might state that in the five years the company had been in existence the average dividend paid on ordinary shares had been at the rate of 7½ per cent. per annum. With regard to the future, he did not like to prophesy. He would only say that all indications seem to point to a turn in the tide not very far off, if it had not already come. They were hopeful it had come, but whatever was in store for them in the future, he assured them the directors would do all they could for the success of the business. They were now getting cheap fuel, they had already got their manufactures into some new markets, and they were extending their operations in every quarter where they could see an opening.—Sir William Arrol, Kt., seconded the motion, which was carried.—Mr. J. Wotherspoon was re-elected a director.—A resolution was passed authorising the directors to fill up the vacancy caused by the retirement of Mr. A. Bain.

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NOTICE IS HEREBY GIVEN, that the FIFTEENTH ORDINARY GENERAL MEETING of the Members of the above-named Company will be held at the Cannon Street Hotel, in the City of London, on TUESDAY, the 2nd day of April, 1895, at 12 o'clock noon.

To receive the Report, and Accounts.

To elect Directors and Auditors in the place of those retiring; and other General Business.

By order of the board,

I. CROCKER, Secretary.

Registered Offices: 6 and 7, Queen Street Place, London, E.C., 23rd March, 1895.

THE NUNDYDROOG COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN that the SECOND ORDINARY GENERAL MEETING of this Company will be held at the Cannon Street Hotel, in the City of London, on WEDNESDAY, the 3rd day of April, 1895, at 12 o'clock noon.

To receive the Reports and Accounts.

To elect Directors and Auditors, and for other General Business.

By order of the board,

I. CROCKER, Secretary.

Registered Offices: 6 and 7, Queen Street Place, London, E.C., 25th March, 1895.

THE LINARES LEAD MINING COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that the HALF-YEARLY GENERAL MEETING of the above Company will be held at the office of the Company, No. 6, Queen Street Place, in the City of London, on THURSDAY, the 4th proximo, at 1 o'clock p.m.

To receive the Accounts, Balance-sheet, and Reports of the Directors, Auditors, Superintendent, and Mining Agents for the half-year ending 31st December, 1894.

To elect a Director in the place of Edward L. Agar, Esq., who goes out of office by rotation. Mr. Agar is eligible, and offers himself for re-election.

To appoint two Auditors for the ensuing year. James W. Jepps and Samuel J. Wilde, Esq.s, who are eligible, offer themselves for re-election.

And for General Business, as authorised by the Deed of Settlement.

By order of the Board,

H. SWAFFIELD, Secretary.

Registered Office: 6, Queen Street Place, London, E.C., 27th March, 1895.

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To receive the Accounts, Balance-sheet, and Reports of the Directors, Auditors, Superintendent, and Mining Agents for the half-year ending 31st December, 1894.

To appoint two Auditors for the ensuing year. Samuel J. Wilde and Francis S. H. Judd, Esq.s, who are eligible, offer themselves for re-election.

And for General Business, as authorised by the Deed of Settlement.

By order of the Board,

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Registered Office: 6, Queen Street Place, London, E.C., 27th March, 1895.

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To elect two Directors in the place of Robert Henty, Esq., and Richard Donagan, Esq., who go out of office by rotation. They are eligible, and offer themselves for re-election.

To appoint two Auditors for the ensuing year. James W. Jepps and Samuel J. Wilde, Esq.s, who are eligible, offer themselves for re-election.

And for General Business, as authorised by the Articles of Association.

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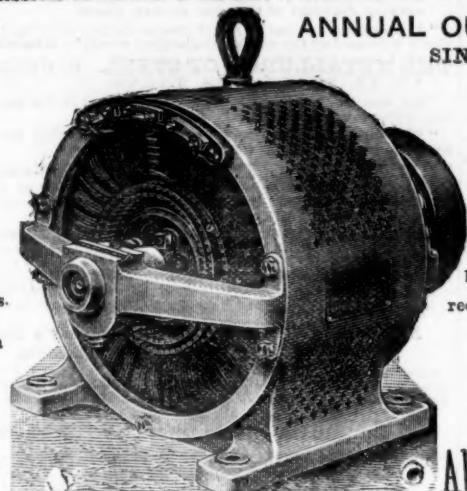
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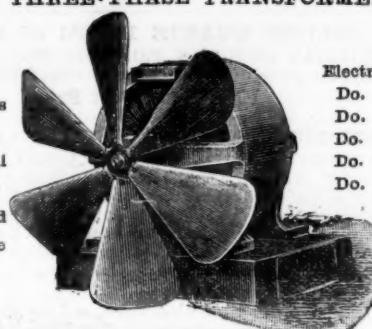
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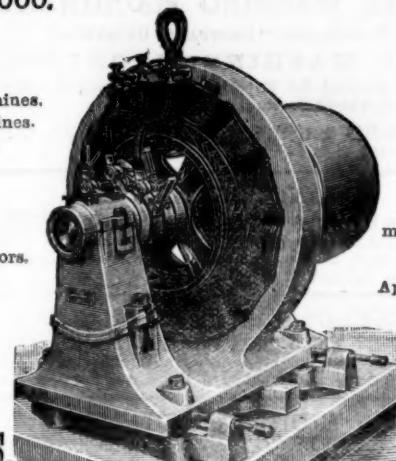
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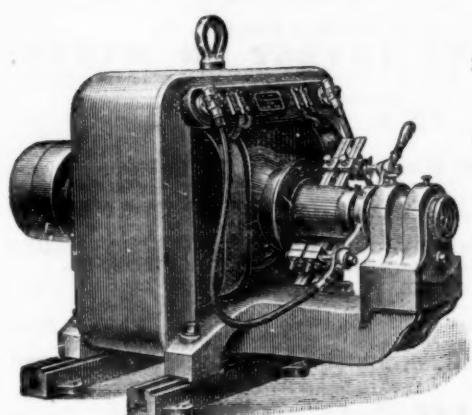
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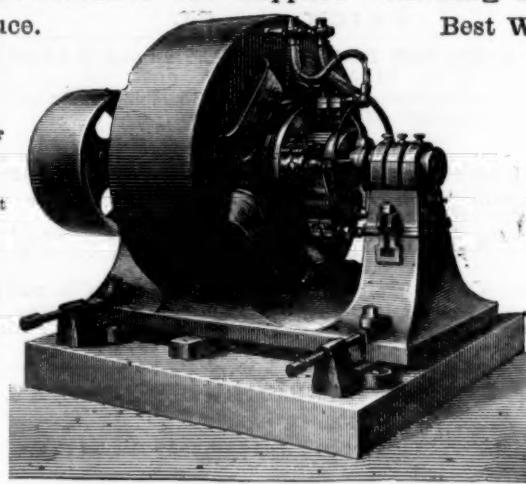
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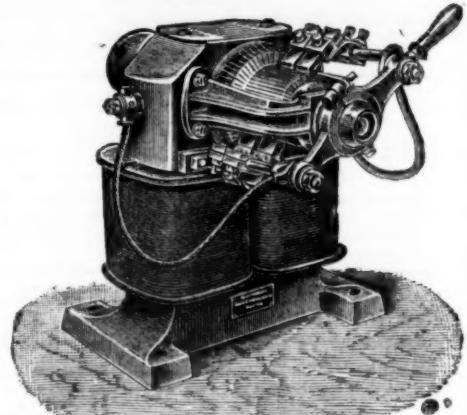
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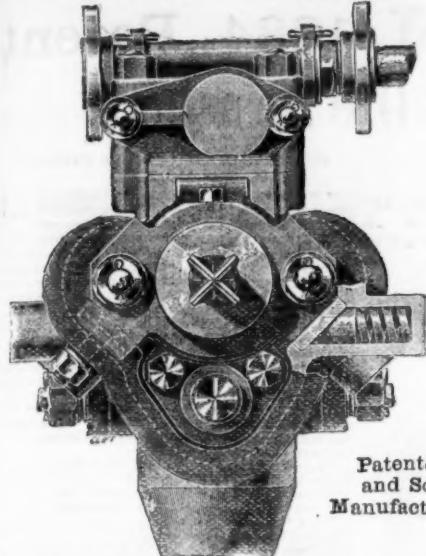
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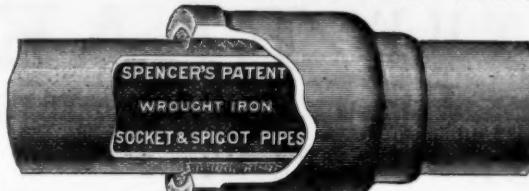
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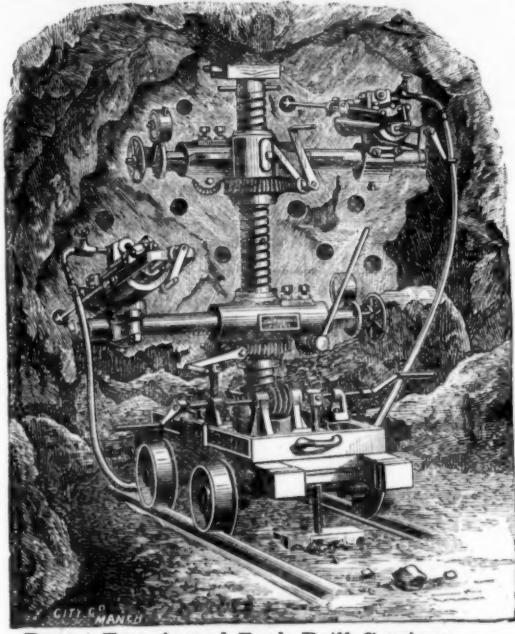
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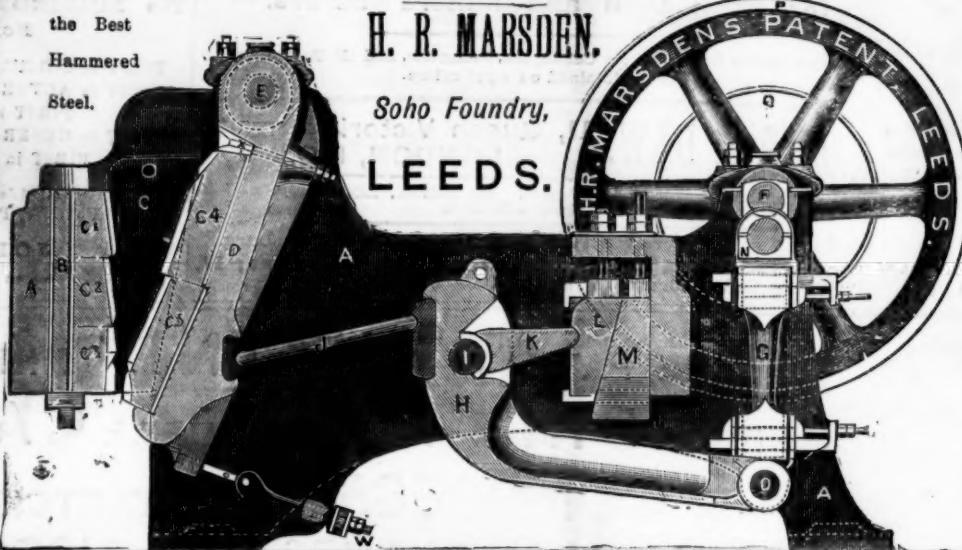
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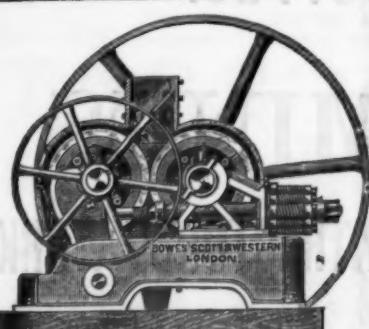
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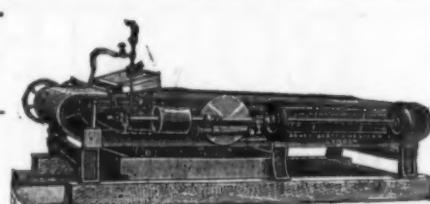


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